



# College AND UNIVERSITY Business

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## MORAL PRINCIPLES AND RACIAL DISCRIMINATION

**HAROLD TAYLOR**

President, Sarah Lawrence College

THE RECENT REPORT OF THE PRESIDENT'S COMMISSION on Higher Education deals explicitly and cogently with a number of basic questions in American life, through its documented case against barriers to higher education. The existing economic and social barriers were identified in the report, and specific recommendations and judgments were made about the way in which those barriers could be removed. Principal among these are the recommendations for national scholarship aid and state legislation against discrimination. New York State has now accepted such legislation and has taken firm steps to correct its inequalities.

The minority group in America whose situation is worst, however, is the 10 per cent of the country's population that happens to be colored. The average Negro boy or girl is unlikely to have had enough preliminary education either to know whether he is talented or to prepare the talent he has for presentation to the college admissions offices. Only half the Negroes in the United States have completed five years or more of grade school; only 3 per cent of the total college population today is colored.

There is also discrimination on the part of private colleges and schools against Jewish students, in the form of actual or tacit quotas for their admission. Arguments as to why these quotas must exist vary. There are those who say that in order to protect the Jewish students from arousing anti-Semitic feelings on the part of the college community, or the general public, it is necessary to keep them out of the school or college. This seems to indicate an appalling lack of vision as to the function of education and the moral values of the educator, for if ever there was a problem that touches the roots of social evils in the world today, it is this one.

It is therefore one of the key points at which educators can find the material for their educational program and one of the first places at which any education for responsible citizenship must take hold. It is not enough to put in a required course in race relations for white Gentiles, and sit tight. It is a question of blending the diversity of students from all social, racial and economic groups into a community of free-thinking, humane and generous young men and women.

Then there are arguments about the status of the school and the college, which might become sullied in the minds of parents, alumni and the general public by the presence of Jewish or Negro students. Aside from the insulting implication for those human beings who happen to be Jewish or Negro, this indicates a failure in the moral leadership of those educators who make the argument, since the function of education is to lead people toward a clearer and full understanding of the problems of mankind, not to reflect the prejudices and evils of the society in which the education is operating.

I believe that we, as educators, have the moral obligation to take the initiative in overcoming controls and public pressures by those not as interested as ourselves in the higher education of young people in the moral principles of contemporary life. It is not an easy task; it stirs up controversy and difficulty. But I think we have a choice to make. If we want our institutions to be known and valued because we act as servants to a privileged class of Americans, we act in one way. If we want to be known and appreciated as leaders of moral values for contemporary life, we act in another. I suggest that for the sake of a better society in America, we take the latter course.



# College AND UNIVERSITY Business

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## In this issue:

Moral Principles and Racial Discrimination.....	op. 1
HAROLD TAYLOR	
Looking Forward.....	3
Mechanical Form and Operation of the Budget.....	4
R. L. COLLINS	
Purchasing by Standardization and Specification.....	7
GUY M. BRISLAWN	
Enrollment Forecasts.....	8
J. HAROLD GOLDTHORPE	
Design for Science and Pharmacy at Drake.....	11
SAARINEN SAARINEN and ASSOCIATES	
And So to Bed—and Board.....	14
ROBERT W. McEWEN	
Announcing College Food Service Institute.....	15
Chapel Sprouts a Wing.....	16
WEIR C. KETLER	
Clerk of the Works.....	17
E. E. BRYAN	
How We Handle Fee Assessment Cards.....	18
F. E. OLIVER	
Public Aid for Denominational Colleges.....	19
M. M. CHAMBERS	
Supermarket Technics in a Bookstore.....	20
ROBERT F. NEWTON	
Double Trouble, or Too Many Kitchens.....	22
HOWARD D. HENRY and DOUGLAS C. OSTERHELD	
The Secret of Campus Beauty Is Constant Care.....	24
ROBERT L. McKINNEY	
Questions and Answers.....	26
News of the Month.....	27
Directory of Associations.....	32
Want Advertisements.....	50
What's New.....	60

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## Among the Authors



R. L. COLLINS

Mrs. Collins John-Gunthered the U.S.A., going down the Pacific Coast, across the southern tier of states to the Atlantic, north through New England and Quebec, and then west around the Great Lakes to home. A young son and an even younger daughter have restricted their travels temporarily.



R. L. MCKINNEY

that we would run out of space if we tried to list them all. . . . ROBERT WARD MCEWEN, president of Blackburn College, is a former professor of philosophy and religion, also a former librarian. He was a member of the faculty of Carleton College for six years before accepting his present appointment in 1945. He is a philatelist and chess addict.



R. F. NEWTON

ROBERT FLOYD NEWTON, supervisor of the Butler University bookstore, seems always to have had a yen for bookstores. During undergraduate days he worked in the bookstore at Indiana State Teachers College in Terre Haute; later he managed a high school bookstore for twelve years and has had charge of the Butler University bookstore since January 1947. At Butler he also doubles in brass as an assistant professor of accounting in the college of business administration. . . . EDWARD EVERETT BRYAN, superintendent of buildings and power plant at Vanderbilt University, has been in charge of such work on the Vanderbilt campus since 1924. He is a past president of the Engineering Association of Nashville and is a registered and licensed engineer in the state of Tennessee. When not supervising construction on campus, he indulges in a bit of fishing and hunting. His latest hunting trip netted him a 22 lb. wild turkey gobbler.



G. M. BRISLAWN

GUY M. BRISLAWN, purchasing agent of the State College of Washington, returned to his alma mater after almost fifteen years in business in Reardan and Spokane, Wash., Lewistown, Mont., and Boise, Idaho. He has been chief accountant, budget officer and purchasing agent at the college since his return there a little more than four years ago.



# Looking Forward

## Food Service Steals You Blind

IT IS AMAZING WHAT COLLEGE ADMINISTRATORS DON'T know about the operation of food service facilities for students. Least of all, about what it costs!

College food service is big business. This magazine's recent survey indicates a national dollar volume in excess of a quarter billion dollars. Why not give this phase of operation the attention it deserves? Interestingly enough, only a small percentage of the administrators reporting in the survey had any idea as to what constitutes "raw food costs." How does the administrator know whether he's losing his shirt or not—unless he has basic information?

What to do?

First, obtain the best food service director available, if expert performance is expected. Pay a respectable salary for the job. College cooks often get bigger pay checks than the persons supervising them! Make certain that your food service director understands and utilizes sound principles of organization and administration. Such a person must not be limited to technical knowledge regarding nutrition and menu preparation but must be able to work harmoniously with staff associates and must have a thorough understanding of cost control technics.

The business office must see to it that the food service director is supplied with proper record forms on which to make constant checks on costs and standards. Sound purchasing and inventory control are prime requisites for efficient administration.

In the rush of things, don't overlook your customers—the students. A well operated food service department can often do more to maintain high student morale than any other factor on campus. And it can just as easily ruin morale.

Relatively little attention has been directed to the problems of food service administration at annual meetings of college and university business officers. A great deal of time is allotted to discussing investments and endowments, now producing a very low yield, but the ramifications of the food service, with its

present high commodity and labor cost, get less than a passing glance. As one commercial food operator comments, "I should go broke in two weeks, if I permitted the waste that I have observed in many college food service operations."

Isn't it about time that college food service operation receives the attention due it?

## What Are You Reading?

IN THE HURLY-BURLY LIFE OF A COLLEGE CAMPUS IT is often difficult for a college executive to devote the time that he should to reflection. To neglect such reflection may cause him to become so engrossed with daily routine that he loses perspective and purpose. As one writer phrases it, "He is forever busy, but he becomes a man of motion, not a man of action."

One admirable way to gain perspective is to be keenly alert to what the college student refers to as "outside reading." Reading which, though not a part of the immediate task, gives substance and interpretation to it.

College administrators will find "Colleges for Freedom" a book that will challenge them to rethink their own objectives. Co-authored by Dr. Donald J. Cowling, president of Carleton College from 1909 to 1943, and Dr. Carter Davidson, president of Union College and for ten years president of Knox College, the volume speaks out of the experience of these well known American educators. It concerns itself in the main with the function of the liberal arts college, but its effective contribution is not restricted to that field.

Specific in their suggestions, the authors in chapter 12 have attempted to answer the question, "How much money does a college need?" Even for the experienced college administrator this material will prove profitable. Many an administrator would like the answer to that question.

In reading, read with objectivity. Francis Bacon once counseled: "Read not to contradict and confute, nor to believe and take for granted, nor to find talk and discourse, but to weigh and consider."

# MECHANICAL FORM AND OPERATION OF THE

R. L. COLLINS

Budget Officer  
Oregon State System of Higher Education

A BUDGET IS DEFINED IN A WIDELY accepted manual on college and university financial reports as "a statement of the estimated income and expenditures during a fixed period" and "an authorization to incur the expenditures and to collect the income."\*

Such a brief definition necessarily omits mention of the many particular problems that must be worked out by each institution in its budget planning and in the practical everyday operation of its budget. Some of the particular budget problems that have been encountered in the Oregon state institutions of higher education, and how they have been handled, are discussed in the following paragraphs.

The state of Oregon has five publicly supported institutions of higher education controlled by one governing board, the state board of higher education. The institutions include the university, the state college, and three colleges of edu-

cation. Some of these institutions have branches or service units distributed over the state. The final accounting for income and expenditures is handled through a central accounting office. In these respects the budgeting problems in Oregon are similar to those of other large state colleges and universities that have service units operating at scattered locations.

**Budget Plan.** The most important problem encountered each year is that of working out a preliminary, summarized budget plan which the chancellor can present to the board for its consideration before the detailed departmental budgets are prepared. This preliminary budget plan must be brief, but it must include all the major recommendations of the chancellor and of the other executive officers of the institutions, and it must show how much these recommendations will cost during the ensuing fiscal year. It must, of course,

show also the estimated resources from which the recommended budget is to be financed.

To provide a concrete example of the types of recommendations included in the budget plan, the accompanying outline statement is presented. Although this is not an exact reproduction of the budget plan for any fiscal year, it is representative of the method employed.

## FOR BOARD REVIEW

Recommendations of the type indicated in the accompanying outline of a budget plan permit the governing board to review with the executive officers the principal items and policies to be incorporated in the ensuing year's budget. Approval in advance of the major outlines of the budget by the board enables the executive officers to proceed with confidence in preparing the detailed departmental operating budgets. The preliminary budget plan, as described here, is usually presented to the board early in March, and the complete, detailed departmental budgets, including personnel, are then usually presented to the board for final approval in May for the fiscal year beginning the following July 1.

No attempt is made here to report on the procedures used in building the detailed departmental budgets. The difficulties encountered in stretching available funds to meet educational needs and the methods used in dealing with these problems can be more adequately presented by the president, the dean, or other educational administrator.

**Keeping Detailed Budget Up to Date.** During each fiscal year, after the detailed operating budget has been approved, many personnel changes are approved, and many other board actions and administrative orders occur, which

\* Financial Reports for Colleges and Universities, compiled by the National Committee on Standard Reports for Institutions of Higher Education, University of Chicago Press, 1935.

## BUDGET PLAN FOR FISCAL YEAR

Budget Summary, Unrestricted Funds  
Showing Proposed Use of Available Funds

Estimated Resources Available During Year (supported by detailed schedule)	\$
Proposed Application of Funds in Budget for Fiscal Year	\$
To continue the present operating level (all temporary or non-recurring costs eliminated)	
To cover increased costs of state retirement plan for employees	
To cover additional cost of 40-hour week for civil service staff (nonprofessional employees)	
To provide contingency fund for summer sessions (to revert to board's unappropriated balance if not required)	
To provide increase in statewide advisory service in science and technical fields	
To provide increase in building rehabilitation fund	
To cover cost of increase in state civil service pay scale for nonprofessional employees	
To provide selected merit salary increases for professional staff	
To provide for necessary additions to the staff, principally teaching staff	
To provide for a president's operating reserve	
Amount recommended for board's unappropriated balance to serve as an emergency reserve	
Total Proposed Budget for Fiscal Year (equal to estimated resources shown above)	\$

NOTE: Each of the items in the summary is supported by tabulations and calculations which will furnish detailed information as required.



# THE Budget

## in the Oregon State System

alter the authorized budgets in the various divisions of the institutions. The problem raised by these numerous changes in departmental budgets is the communication of the changes in a prompt and orderly manner to the division heads, to the budget control section of the central accounting office, to the pay roll department, and to all others directly concerned with the budgets of the departments involved.

### FORM FOR BUDGET CHANGE

To facilitate the prompt issuance of information to all parties concerned, a budget change form was adopted which shows the following information:

1. Authority for the change (board minutes or administrative order).
2. Account number and name of department affected by the change.
3. Amount of budget by classification before the change.
4. Increase or decrease to each classification caused by the change.
5. Source of funds for a budget increase; disposition of any funds saved through a budget decrease.
6. Amount of budget by classification after the change.
7. Personnel detail before and after the change showing any change affecting an individual staff member, such as change in position, promotion in rank, change in salary rate, leave of absence, resignation or appointment.

The prompt distribution of the foregoing information enables each party concerned with the operation of a departmental budget to keep his file on the budget up to date, including all changes in the authorized amount of expenditures and all changes in personnel. The form employed for the notice of change in budget, with sample entries, is shown in the accompanying illustration.

**Monthly Accounting Reports.** The problem in this area is to obtain promptly each month for budget control pur-

Oregon State System of Higher Education  
**NOTICE OF CHANGE IN BUDGET**

In accordance with authorization by the Administrative Office of the State Board of Higher Education, the budget for this department has been changed as indicated below.

Board Minutes, July 22, 1947

Institution University of Oregon No. 486  
Department English  
Fiscal Year 1947-48 Account No. 342  
July 23, 1947

	Budget Previously Authorized*	CHANGE AUTHORIZED		Budget as Changed
		Increase	Decrease	
Salaries - - - - -	140,000.00	450.00 <sup>a</sup>		140,450.00
Requisition				
W—Wages - - - - -	5,000.00		450.00 <sup>a</sup>	4,550.00
M—Materials and Expense - - -	3,000.00			3,000.00
T—Travel - - - - -	900.00			900.00
E—Equipment - - - - -	1,500.00			1,500.00
Total Requisition - - - - -	10,000.00		450.00	9,550.00
Total Budget - - - - -	150,000.00	450.00	450.00	150,000.00

<sup>a</sup>Transfer from wage item to salaries to apply to salary for instructor to serve during sabbatical leave of Associate Professor White.

**DETAIL OF SALARY CHANGES (OR OTHER PERSONNEL ADJUSTMENTS)**

Name and Position	Salary Previously	Change	Rate of Service	Pay-Date	Salary Rate	Amount Budgeted
<b>As previously authorized—</b>						
A. B. White, Associate Professor	12	Endef.	10 Mos.	1.00	4,500.00	4,500.00
<b>As changed—</b>						
A. B. White, Associate Professor (On sabbatical leave, half pay, September 1, 1947 through June 30, 1948)	12	Endef.			2,250.00	2,250.00
_____, Instructor to serve during absence of Mr. White. Appointment to be effective September 1, 1947.	12	One Year	10 Mos.	1.00	2,700.00	2,700.00

Budget Officer \_\_\_\_\_

Copy referred to \_\_\_\_\_ for reference and permanent file

\*Budget previously authorized—No new one or more changes have previously been authorized for this budget, the "Budget Previously Authorized" shows the budget as affected by such previous changes.  
17301-6-47-1028

poses and for general administrative use statements that will show the extent to which budget income estimates are being realized and the amounts of departmental budget expenditures and unexpended budget balances.

For internal monthly report purposes, the approved detailed budget—both as to income estimates and as to authorized expenditures by departments—is incorporated in the general accounting records. In this respect the recommendations of the National Committee on Standard Reports for Institutions of Higher Education have been substantially followed. The monthly reports on income show the estimated income, the income realized, and the amount of underrealization or overrealization of income. The monthly departmental budget statements show amounts of authorized expenditures for the year, expenditures to date, and also the unexpended balances.

Encumbrances for unpaid purchase orders and other unpaid obligations are not entered in the budget accounting records during the year for monthly budget statement purposes. Such encumbrances are recorded only at the end of the fiscal year for the closing financial statement. Forms are furnished all departments for listing each month the purchase orders which have not yet appeared as finally paid in the monthly statement from the accounting office. This enables the department head to determine the balance in his own budget account at the close of each month by deducting the amount of his outstanding requisitions from the unexpended balance reported by the accounting office. The figuring which the department head has to do under this plan is the same as he does when calculating the monthly balance in his personal checking account at the bank. In departments having a large volume of



requisitions the detailed work of reconciling the monthly budget statement usually is done by the departmental secretary.

The omission of the recording of encumbrances for unpaid purchase orders and other unpaid obligations relieves the accounting office of much detail and speeds up the execution of purchase orders, but it increases the financial responsibility of the department head by requiring him to be his own policeman in the matter of avoiding budget overdrafts. This unloading of fiscal responsibility onto the department head may be argued to be good or bad from different points of view. It does consume a certain amount of the department head's time, but at the same time it tends to increase his appreciation of the fiscal problems of the institution and to provide him with a motive to regulate his expenditures prudently throughout the year. Although overdrafts in individual departments have not been entirely eliminated by this method, they have been small in the aggregate.

#### REQUISITION ALLOTMENTS

*Budget Classification by Object.* Another problem invariably met in all budget operations is that of deciding the extent to which budgeted expenditures are to be controlled by object classification. In our budget the allotment to each department is recorded under the following classifications:

##### SALARIES

##### REQUISITION:

Wages

Materials and expense

Travel

Equipment

Total requisition

Total Authorized Budget

The specific question is: Shall each department be required to stay within its budget allotment for each classification? After several years' experience, we have settled on the following method of control: No overdrafts are permitted in the salary item. The necessity for this requirement is obvious. All of the "requisition" items (wages, materials and expense, travel and equipment) are controlled as a total only. In other words, a department may overdraw its travel, equipment or wages item so long as it does not overdraw its total "requisition" allotment. The four separate classifications under "requisition" are actually utilized only for the purpose of estimating budget requirements and



for classifying final expenditures in the annual financial report.

It is our experience that the budget control of "requisition" items by total only has simplified the budget accounting and has greatly reduced the number of budget transfers requested by departments, without any significant change in the amounts of unexpended balances turned back by the departments at the close of the fiscal year.

*Periodic Reports to Board and Executives.* The Oregon state board of higher education holds eight regularly scheduled meetings each year at intervals of approximately six weeks. For each of these meetings a docket of recommendations is prepared to be formally considered and acted upon by the board. The recommendations include appointments of personnel and other recommendations affecting the budgets. At the time of these meetings the chancellor and the other executive officers and the members of the board need to know the state of the unappropriated balance and the effect which the recommendations to the board will have on the balance of available funds. To meet the need for this information a financial report is issued to board members and executive officers immediately preceding each board meeting. The usual contents of the report are as follows:

1. Report of estimated balance in the unappropriated fund, showing balance



after the last preceding board meeting; any increases or decreases in estimates of resources; cost of the recommendations in the docket for the ensuing board meeting, and estimated balance of unappropriated funds after caring for all recommendations in the docket.

2. Reports on comparative student enrollments or other information affecting budget operation.

*Incidental Uses of Budget Files.* As indicated in a preceding paragraph, all approved budget changes, involving personnel adjustments, budget transfers, and budget increases or decreases for any department, are recorded on a notice-of-change-in-budget form which is issued to all parties concerned. The executive office retains copies of all the budget changes issued during a year, which are filed with the originally approved budgets of the respective departments. In this way there is accumulated for each department a chronological record of all changes in personnel and all changes in the amount of funds assigned during the year. We have found this complete budget file, including all budget changes, to be useful in a number of ways.

#### FOUR CHIEF USES

1. It is the most nearly accurate and most satisfactory source available for historical and comparative data on the number of teachers and other staff members in the various departments or in the institution as a whole.

2. It shows readily what has happened to individual staff members over the years with regard to assignments, promotions, salary adjustments, leaves of absence, and length of service.

3. It provides a record of the circumstances under which the financial support of a department has been increased or decreased over the years.

4. It is a valuable cross reference or index to actions by the governing board and the executive officers concerning personnel, appropriations and other matters affecting the budget.

*Summary.* In working with these problems I have observed that many of an institution's most vital educational, financial and management policies are translated into action through its budget planning and budget operation. This fact makes it especially important that the mechanical form and operation of the budget be the simplest, most efficient and practical that can be devised to handle the problems of the particular institution.

# Purchasing

## BY STANDARDIZATION AND SPECIFICATION

GUY M. BRISLAWN

Purchasing Agent  
State College of Washington

THE JOB OF PURCHASING AGENT FOR an institution of higher learning should be occupied by a person with an ability to recognize and appreciate every individual's differing ideas. Naturally, a college staff is made up of a cross section of people from the forty-eight states and a large majority of European countries, as well as a scattering of all other nationalities. With these backgrounds it is logical to expect that their desires and needs will vary from small to large degree. Therefore, purchasing becomes, and rightfully so, a problem of how to arrive at correct answers as to the types of equipment or supply most adapted to the needs of the majority of the staff members involved.

As an illustration of the problem, it is well known that different staff members doing the same type of work will each become convinced that a certain manufacturer's product is the only one that can possibly do the required work in the correct manner.

### TO KEEP COSTS DOWN

Working with, and purchasing for, individuals of such a background, a purchasing agent must evolve some means whereby he will be able to avoid unnecessary duplication of types, make and brands of equipment and supplies. The necessity of avoiding such duplications may at first seem unnecessary, but upon a closer study of this problem it becomes evident that such duplication is both costly and inefficient from the standpoint of management.

It is costly because there is no opportunity to make use of equipment in different places owing to lack of uniformity. Larger stocks of repair parts are necessary; more help is needed for maintenance because of diversity of equipment. The same may be said from the standpoint of supplies. If one person demands a certain trade name product while the second and third persons each demands another trade name product for the same type of work, it will require more orders of smaller quantities, thus resulting in greater clerical cost, more small shipments resulting in

higher freight and shipping costs, and more separate items in inventory, a procedure that again demands more space and more help for handling.

The most practical way to eliminate a goodly portion of the aforementioned problems is by standardization in as many different items as possible. This standardization can be accomplished by the institution's establishing specifications of its own to cover its purchases insofar as practicable. After specifications have been established on particular items, all purchases of that item thereafter will be required to conform.

It should be pointed out, however, that all purchases should not have to comply with special specifications set up by the institution but should conform to standard specifications as commonly recognized in trade channels. Standard specifications can be found in a large number of commonly used articles made and sold under standard trade names.

Purchasing by specification has many advantages, some of which are:

1. It makes for uniformity of basis upon which suppliers furnish quotations and guarantee delivery dates.
2. It eliminates waste of time of salesmen and purchasing agent by reducing the necessity for the purchasing agent to listen to several different salesmen demonstrate their equipment.
3. It actually makes the purchasing agent a buyer of the products wanted and needed, instead of making the sales representative a salesman.
4. It reduces high-pressure tactics.
5. After suppliers have been dealing with a customer over a period of time they become familiar with the purchaser's requirements and needs to a point where only those items coming up to such specifications are brought up.
6. In some types of purchases the specifications, when on a specific basis, will form a guarantee to the purchaser that the equipment will do the required job or will be taken back by the supplier.

A typical case of this type is a heating plant purchased according to performance capacity as compared to one purchased according to descriptive specification. In the first case, if the boiler fails to produce the desired performance the seller can be held responsible, whereas, in the second case, if the specifications were followed the buyer would have no recourse.

In purchasing by specification it should be kept in mind that specifications should not be drawn so unnecessarily severe that they will eliminate competition and result in an unnecessarily high manufacturing cost. As a general rule, adequate specifications eliminate guesswork on the part of the bidders and put all producers on a par, whereas the opposite effect would be realized by severely tight specifications.

In an institution of higher learning, a purchasing agent should work closely with the users of the equipment and suppliers to be sure that the items purchased will be useful and will accomplish the objectives for which the purchase is made.

### TYPES OF SPECIFICATION BUYING

In summary, it would be advisable to point out various means used for purchasing by specification:

1. Purchase by Description: Said description must be understood by the user, the purchaser, and the seller.
2. Purchase by Brand: This is used when the brand is established and has proved satisfactory.
3. Purchase by Market Grade: This is the case with lumber and other building materials.
4. Purchase by Sample: Sample to be submitted for inspection.
5. Purchase by Written Specification: Such as in the case of building construction.

Finally, specifications to be used by a buyer may be arrived at from the following sources: They may be set up by the using department and the purchasing agent; they may be furnished by seller; they may be put out by recognized authorities or the government.



# Enrollment FORECASTS

## estimates of national rate of increase of college enrollments up to year 1960

BUSINESS OFFICERS RECOGNIZE READILY the necessity of accurate estimates of future college and university enrollments in planning for adequate staffs and building facilities in their institutional budgets. However, the estimates of future enrollment are influenced by many variables, some of which by their very nature involve unknown factors.<sup>1</sup>

Before presenting the estimates of future enrollments it may be worth while to take a quick view of the history of college enrollments. In table 1 are presented the college enrollment figures and the percentage relationship between the enrollment and the population in the age group 18 to 21 years, inclusive, between 1900 and the autumn of 1947.

### COLLEGE ENROLLMENTS SINCE 1900

Resident college enrollment between 1900 and the autumn of 1947 increased almost ninefold (885 per cent). It is significant that this rate of increase in the total number of college students is approximately ten times the rate of growth of the total population (87 per cent) during the same period. It should be borne in mind, however, that, although this increase in college and university enrollments is a substantial one, it is still considerably below the remarkable expansion of high school attendance during the same period.

Not only has there been a steady increase in the actual number of college students, but there has likewise been a marked increase in the percentage of the population, age 18 to 21 years, inclusive, enrolled in college. This age group is used for comparative purposes since the predominant proportion of the college enrollment is within that age group. At the beginning of the century the percentage of this age-group in college

### J. HAROLD GOLDTHORPE

Specialist in Higher Education  
U.S. Office of Education

was 4.01. It rose gradually to 5.5 per cent in 1915, after which the rate of increase turned sharply upward. By 1940 it had increased to 15.42 per cent, which was almost four times the percentage enrolled in 1900. During the war period this relationship dropped to 10.04 per cent. These facts are shown graphically in figure 1.

There are, of course, wide variations between the states and the regions of the country in the percentage relationship between college enrollments and the age group of 18 to 21 years. These percentages are influenced by such factors as the availability of high school and college facilities, economic factors, density of population, racial and national origin factors, together with the educational traditions of the states and regions. These figures for the nine census divisions of the United States for

the prewar years of 1939-40 are shown in the following tabulation:

New England.....	15.05 per cent
Middle Atlantic.....	15.10 per cent
East North Central.....	17.19 per cent
West North Central.....	17.07 per cent
South Atlantic.....	11.37 per cent
East South Central.....	9.66 per cent
West South Central.....	14.36 per cent
Mountain.....	18.77 per cent
Pacific.....	24.90 per cent

It will be readily seen that the college enrollment in relation to the population group 18 to 21 years of age in the Pacific States region was approximately two and a half times the same ratio for the states of the East South Central region. When the ratios for specific states are considered, the variation is even greater and ranges from less than 10 per cent in at least nine states to 29.52 per cent in Utah and 26.34 per cent in California. It appears altogether likely that the other states will, over the coming decade, repeat the expansion of college enrollments already

Table 1—College and University Enrollment, 1900-1947<sup>a</sup>

ACADEMIC YEAR ENDING	MEN	RESIDENT ENROLLMENT WOMEN	TOTAL	% ENROLLMENT OF POPULATION 18-21 YEARS
1900	152,254	85,338	237,592	4.01
1905	183,451	112,952	296,403	4.02
1910	214,648	140,565	355,213	4.84
1915	284,793	211,754	496,547	5.50
1920	314,938	282,942	597,880	8.14
1926	<sup>b</sup>	<sup>b</sup>	941,310 <sup>b</sup>	11.27
1930	619,935	480,802	1,100,737	12.37
1932	667,181	487,936	1,155,117	12.74
1934	615,720	439,640	1,055,360	11.45
1936	706,672	496,555	1,203,227	12.89
1938	803,893	547,012	1,350,905	14.17
1940	893,250	600,953	1,494,203	15.42
1942	818,559	585,431	1,403,990	14.25
1944	577,229	581,862	1,159,091	12.05
Autumn, 1945	371,000 <sup>c</sup>	581,000 <sup>c</sup>	952,000 <sup>c</sup>	10.04 <sup>d</sup>
Autumn, 1946	1,417,500 <sup>c</sup>	660,500 <sup>c</sup>	2,078,000 <sup>c</sup>	— <sup>d</sup>
Autumn, 1947	1,659,249	678,977	2,338,226	— <sup>d</sup>

a. Data for the period 1900-1944 are taken from U.S. Office of Education Statistics of Higher Education, 1939-40 and 1941-42, and the Statistical Summary of Education, 1943-44. Data for the autumns of 1945, 1946 and 1947 are from the office's Statistical Circular, SR 21.3-116, Nov. 20, 1947, and Circular No. 238, Nov. 10, 1947.

b. Data not reported separately by sex.

c. Estimated.

d. Percentages for these two years are not presented because of the undue influence of the "veteran enrollment bulge." Since many veteran students are beyond the usual college age, percentages based upon the population in the age group 18-21 years are not so meaningful and significant as for the earlier years.

<sup>1</sup> For a comprehensive discussion of the enrollment trends and their underlying factors, see the following articles: Fred J. Kelly: College Population Trends, Higher Education 2: 1-5 (May 15) 1946, and John Dale Russell: Enrollment Trends in Higher Education, Jour. Amer. Assn. of Coll. Registrs. 22: 413-31 (July) 1947.

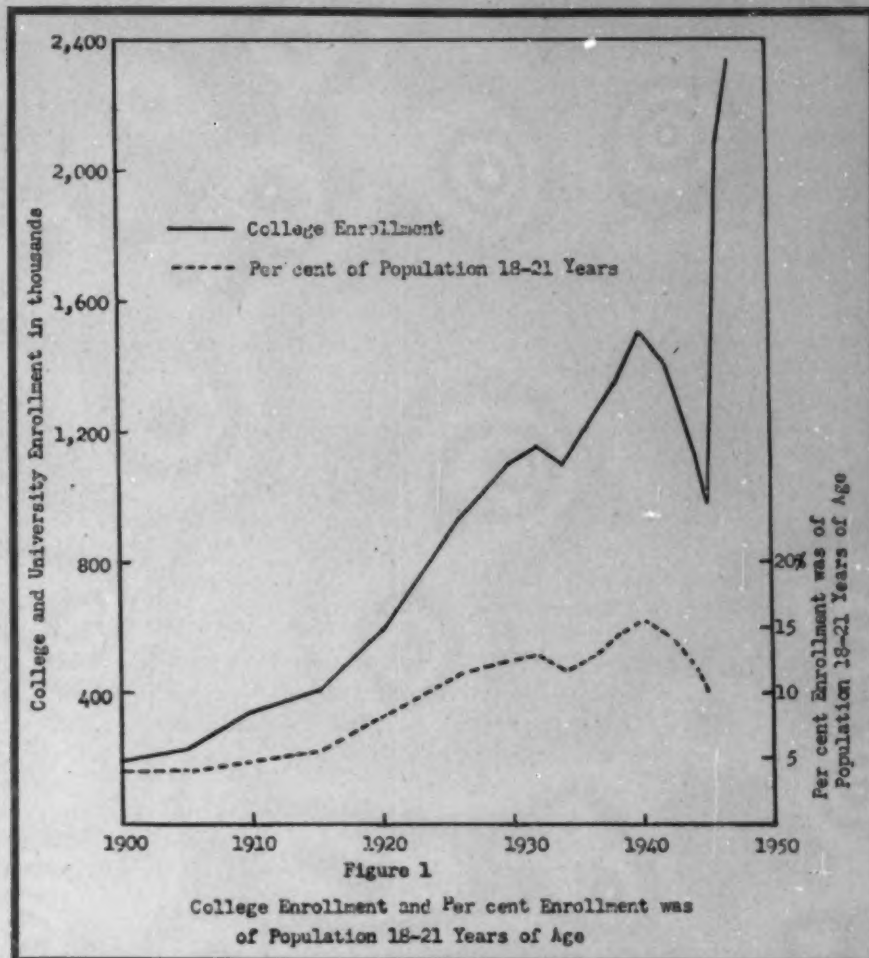


shown by the data for the western states. There is ample reason to believe that this expansion is similar and is probably related to the same underlying basic social factors which influenced the popularization of high school education in the last generation.

#### PREVIOUS ENROLLMENT ESTIMATES

Since the end of the war there have appeared in professional literature at least nine estimates forecasting future college enrollments. These have been brought together as part of the work of the Office of Education's Veterans Educational Facilities Program, which is carried on in cooperation with the Federal Works Agency. Because of the interest of college presidents, business officers, and members of control boards, it is believed that a summary of enrollment forecasts might have some value. Such a summary suggests the need for further analyses of enrollment trends in specific institutions and states.<sup>2</sup>

The summary of the estimates of future college enrollments is presented in the order of their publication in table 2. Not all of these estimates are strictly comparable, since some are based upon different premises. For example, the Rohrer and the Douglass and Elliott estimates for the years 1947-48 and 1949-50 are for so-called "normal enrollments" and do not include veterans. Moreover, the latter estimate is for full-time undergraduate students, age 18 to 21 years, and does not include foreign students, students under 18 years of age,



students over 22, or enrollments in graduate and professional schools.

The estimates for the current academic year should be related to the data reported in the Office of Educa-

tion's "Statistical Circular No. 238," Nov. 10, 1947. Based upon the reports from 1732 institutions, the total number of full-time and part-time college students (excluding summer session, correspondence and extension students), attending in the third week of the fall term, was 2,338,226. The gross cumulative enrollment figure by the end of the academic year will probably approximate 2,640,000 students.

#### V.E.F.P. ENROLLMENT ESTIMATES

As part of its effort to obtain an equitable distribution of war surplus buildings and equipment, the Office of Education through its Veterans Educational Facilities Program obtained estimates of their future enrollments directly from the colleges and universities.

<sup>2</sup> As examples, see such studies as the following: American Council on Education, Pacific Coast Committee, College-Age Population Study, 1947-64 (Washington: American Council on Education, November 1947); Lancaster, John L.: College Enrollment in Virginia (Charlottesville: University of Virginia, May 1947), and George D. Strayer, Chairman: Report of a Survey of the Needs of California in Higher Education (Sacramento: State Department of Education, March 1948).

Table 2—Summary of Estimates of Future College Enrollments

AUTHOR	DATE	(In Thousands of Students)			
		1947-48	1948-50	1954-55	1959-60
Kelly <sup>a</sup>	May 1946	—	1,700-1,900	—	—
Parich <sup>b</sup>	July 1946	4,000	6,000	3,800	3,700
Hungate <sup>c</sup>	1946	—	1,908	2,098	2,260
Dewhurst <sup>d</sup>	January 1947	—	3,400	—	3,600
Miller <sup>e</sup>	April 1947	2,500	2,200	1,900	2,500-3,000
Veterans Educational Facilities Program	May 1947	2,355	2,561	2,627	2,814
Russell <sup>f</sup>	July 1947	2,650	2,900	3,100	—
Allen <sup>g</sup>	August 1947	2,400	2,200	1,950	2,250
Rohrer <sup>h</sup>	October 1947	1,780 <sup>j</sup>	1,800 <sup>j</sup>	1,850	1,900
Douglass & Elliott <sup>i</sup>	December 1947	1,216 <sup>j</sup>	1,340 <sup>j</sup>	1,598	2,222

<sup>a</sup> Kelly, Fred J.: "College Population Trends," Higher Education 2: 1-5 (May 15) 1946.

<sup>b</sup> Parich, Clarence E.: Analysis of the Need for Facilities to Provide Adequate Educational Opportunities for Veterans and for Graduates of Secondary Schools. New Brunswick, N. J.: Rutgers University (July) 1946.

<sup>c</sup> Hungate, Thad L.: Financing Higher Education. New York City: Teachers College, Columbia University, 1946. P. 224.

<sup>d</sup> Dewhurst, J. Frederic, and Associates: America's Needs and Resources. New York City: Twentieth Century Fund, 1947. P. 320.

<sup>e</sup> Miller, Ernest C.: "Enrollment Trends" in Current Problems in Higher Education. Washington: National Education Association, 1947.

<sup>f</sup> Russell, John Dale: "Enrollment Trends in Higher Education," Jour. of the Amer. Assoc. of Colleg. Registrars 22: 413-31 (July) 1947.

<sup>g</sup> Allen, John S.: "Anticipated Demands for Higher Education," School and Society 66: 139-43 (August 23) 1947.

<sup>h</sup> Rohrer, J. H.: "Future Enrollments in Higher Education," Jour. of Higher Education 18: 373-76 (October) 1947.

<sup>i</sup> Douglass, Earl R., and Elliott, Lloyd H.: "What Will Happen After the Veterans Leave?" School and Society 66: 465-67 (December 20) 1947.

<sup>j</sup> These figures are for "normal enrollments" only, and do not include veterans.

The authorized representatives of institutions, in most instances the presidents or business managers, were asked to estimate the number of their full-time and total student enrollments for the fall terms of the academic years 1947-48 and 1949-50. They were also asked to provide enrollment estimates, including part-time students, for the years 1954-55 and 1959-60.

No special brief is offered for the validity of these estimates, but they are the sum totals of the estimates of the same institutions for four different years in a twelve-year period. These figures are the best guesses now available for planning the building expansion of their respective institutions and so are being used.

Most estimates of prospective enrollments have been presented as gross national figures based upon varying premises. The merit of the V.E.F.P. estimates is that they are based upon the ambitions and programs of the same group of institutions, which presumably have studied their long-range plans and the means of financing these plans. On the other hand, a serious limitation is that by their very nature they do not take account of the birth and development of new educational institutions during the coming decade. Present indications, already apparent in such states as California and New York, suggest that there will be a substantial increase in the number of new institutions, particularly of the junior or "community college" type and technical institutes.

The total estimated enrollments of the 1386 institutions (these institutions last year accounted for 96 per cent of the total enrollment in the second semester, 1946-47) which supplied data to the Office of Education were as follows:

Year	Full-Time Students	All Students
1947-48	2,042,000	2,355,000
1949-50	2,153,000	2,561,000
1954-55	.....	2,627,000
1959-60	.....	2,814,000

In comparison with the other enrollment estimates, it will be observed that the V.E.F.P. estimates are relatively conservative. They were made on different assumptions and are based upon the canvass of the institutions concerning their enrollment plans. It is not surprising that such figures are relatively conservative, since they are made by the administrative officers who must raise the institutional funds to carry out their expansion plans. The introduction of new factors into the enrollment situation during the coming decade, such as the appearance of a prolonged economic depression or the inauguration of a broad program of federal scholarships as recently proposed by the President's Commission on Higher Education, would certainly upset these estimates.

#### COMMISSION'S RECOMMENDATIONS

In its consideration of the problem of the number of young people who should attend college, the President's Commission on Higher Education<sup>3</sup> developed a "National Inventory of Talent" based upon the results of the army general classification test scores of recruits. After equating these results with group intelligence tests given to college freshmen, the commission estimated that at least 49 per cent of the population of young adults had the necessary mental ability to complete the junior college years, and that 32 per cent had the ability to "complete an advanced liberal or specialized professional education."

Based upon these estimates the commission recommended a minimum college enrollment in 1960 of 4,600,000, distributed as follows: junior college level (grades 13 and 14), 2,500,000; senior college level (grades 15 and 16), 1,500,000, and graduate and professional schools, 600,000.

<sup>3</sup> President's Commission on Higher Education, Higher Education for American Democracy. Vol. I, "Establishing the Goals," pp. 39-44. Vol. II, "Equalizing and Expanding Individual Opportunity," pp. 51-57.

To overcome the influence of economic barriers, the commission supported a substantial plan of federal scholarships which would become available in larger amounts each succeeding year, as the number of veterans subsidized under Public Laws 16 and 346 decreased. The commission proposed that these scholarships be granted to students primarily on the basis of financial need. They would also depend upon the applicant's "ability, character and sense of responsibility." It also recommended that the maximum scholarship be set at \$800 per year, and that scholarships be provided for at least 20 per cent of the total undergraduate non-veteran student enrollment.

This program would be initiated in 1948-49 with an appropriation of \$120,000,000 to provide scholarships for approximately 300,000 students. It is obvious that in the event of congressional approval of such a substantial scholarship plan upon a national basis, a new factor would be introduced into the college enrollment situation which would mean material increases in the total enrollment.

#### CONCLUSION

It should be emphasized that the estimates summarized in this article are for the college enrollments of the whole nation. Future enrollments of specific institutions and for certain states will no doubt vary from the national rate of increase.

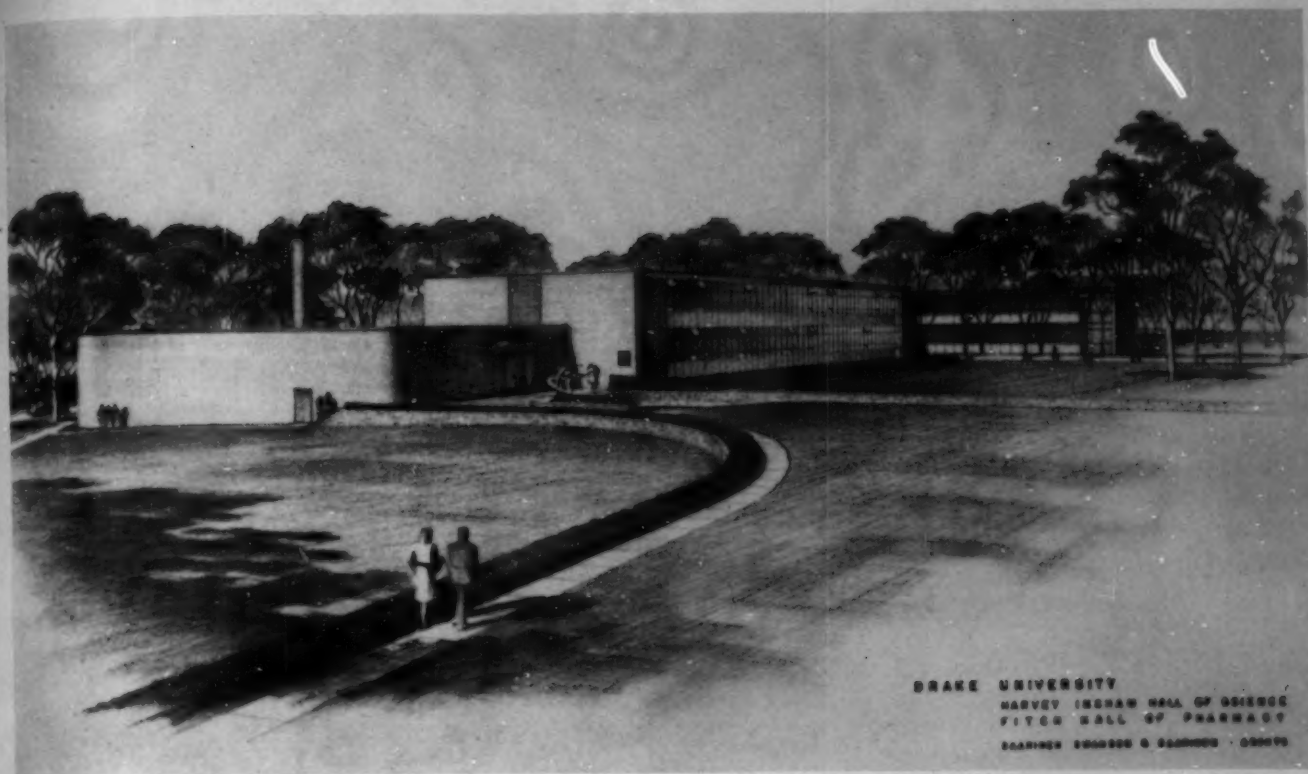
Almost certainly enrollment increases will depend, as they have in the past, upon such factors as general economic conditions, the type of educational programs offered by the institutions, and the willingness on the part of the public to finance its current educational programs and the expansion of facilities.

The huge enrollment increases of the last two years brought about by the returning veterans have dramatized the need for the expansion of the staffs and facilities of the colleges and universities.

## Student Registration

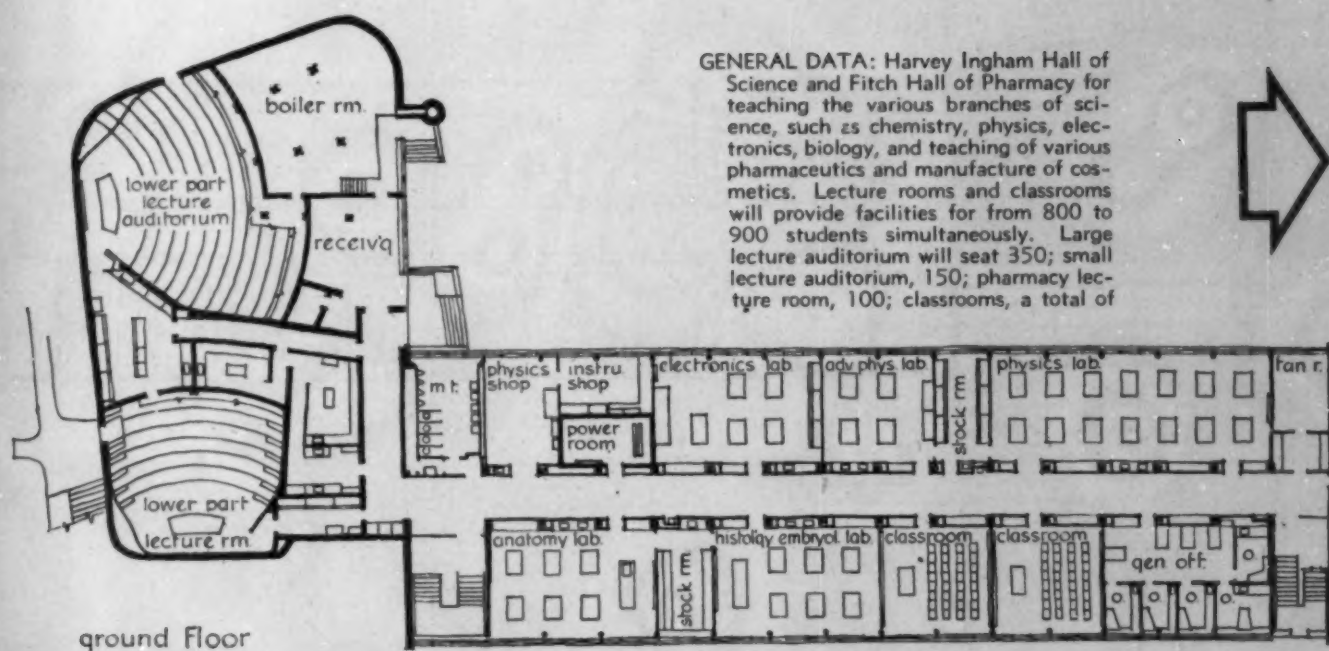
As student hordes sweep over the campus each fall, administrative confusion is not uncommon. In the June issue, Burton E. Stratton of Rochester Institute of Technology will describe a technic of streamlined registration forms that speeds up handling and reduces student and administrative perturbation.





## DESIGN FOR SCIENCE AND PHARMACY AT

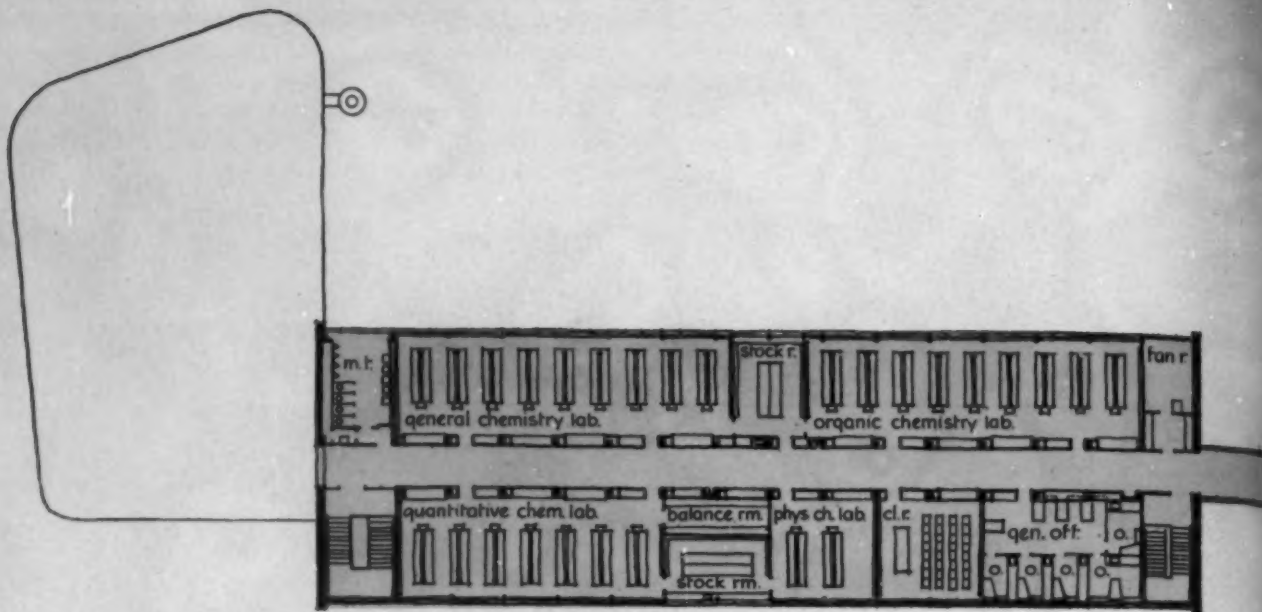
# Drake



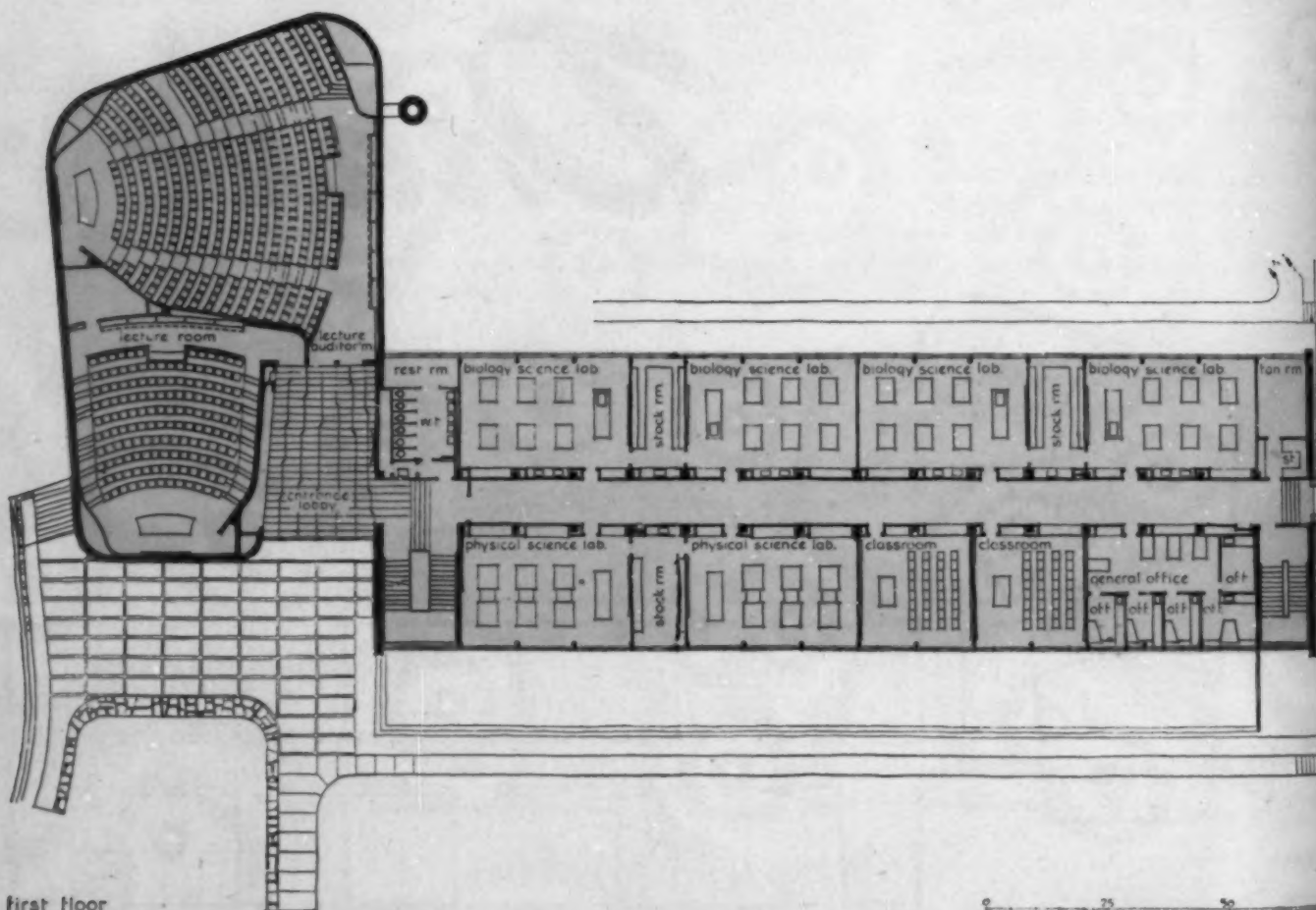
GENERAL DATA: Harvey Ingham Hall of Science and Fitch Hall of Pharmacy for teaching the various branches of science, such as chemistry, physics, electronics, biology, and teaching of various pharmaceuticals and manufacture of cosmetics. Lecture rooms and classrooms will provide facilities for from 800 to 900 students simultaneously. Large lecture auditorium will seat 350; small lecture auditorium, 150; pharmacy lecture room, 100; classrooms, a total of



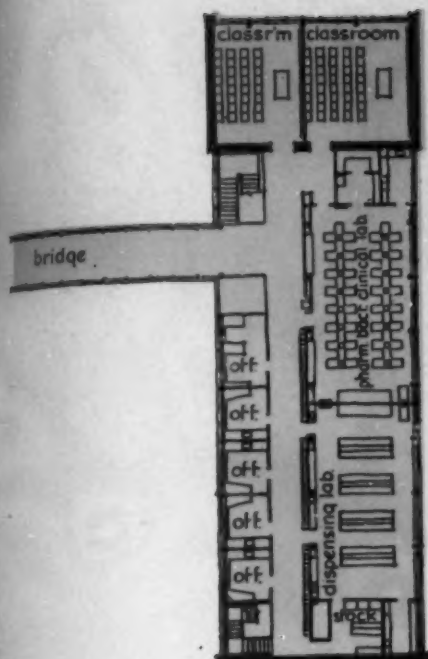




second floor



first floor

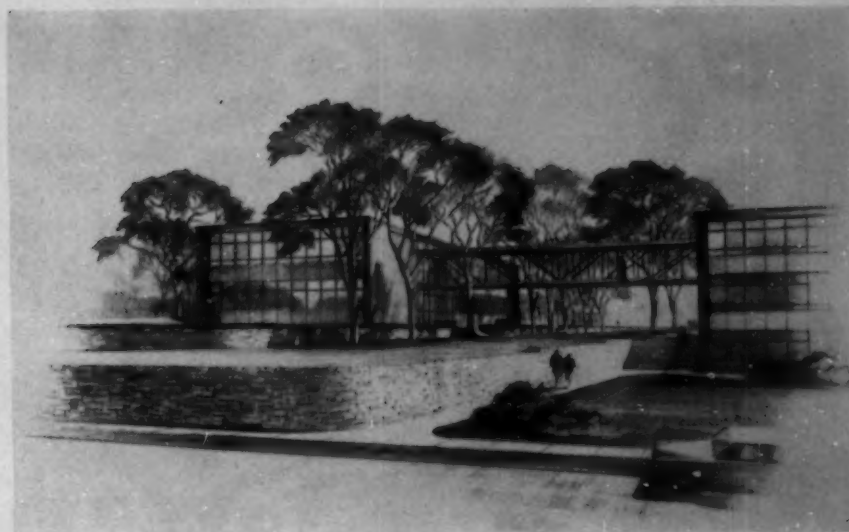
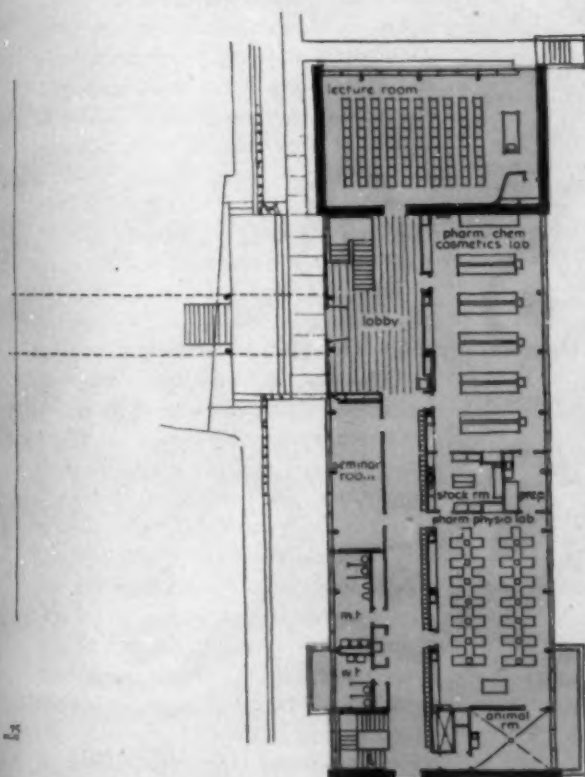


**ARCHITECTS:**  
**SAARINEN SAARINEN AND ASSOCIATES**

Bloomfield Hills, Mich.

**ASSOCIATE ARCHITECTS:**  
**BROOKS-BORG**

Des Moines, Iowa



250. In addition, there are extensive laboratory facilities.

**CONSTRUCTION:** Foundations, floor and roof slabs, and interior columns, reinforced concrete; exterior columns, spandrel beams, lecture auditorium, and bridge, structural steel, fireproofed. Exterior walls around auditorium wing and across ends of both science and pharmacy wings, brick; all other walls, metal frames, metal sash, glass and insulated metal spandrel panels. Corridor partitions, glazed tile; partitions between rooms, plaster on clay or gypsum tile; auditorium walls, brick, wood and perforated acoustical sheets. Windows, steel casement of projected type. Stairways, reinforced concrete. Stair walls, brick and glazed terra cotta.

**FLOORING:** In all laboratories, lecture and class rooms, integrally colored cement; entrance lobbies and stairs, terrazzo floors, treads and risers; corridor floors, asphalt tile.

**WALLS:** Glazed tile and terra cotta, blue-gray; brick, red; interior doors and woodwork, bright colors; plaster walls, light gray.

**CEILINGS:** Lecture rooms, acoustical plaster; laboratories, painted concrete.

**HEATING:** Gas-fired boiler generates steam for heating; general heating, continuous convectors along exterior walls; laboratories and lecture rooms, mechanical ventilation; no cooling or air conditioning.

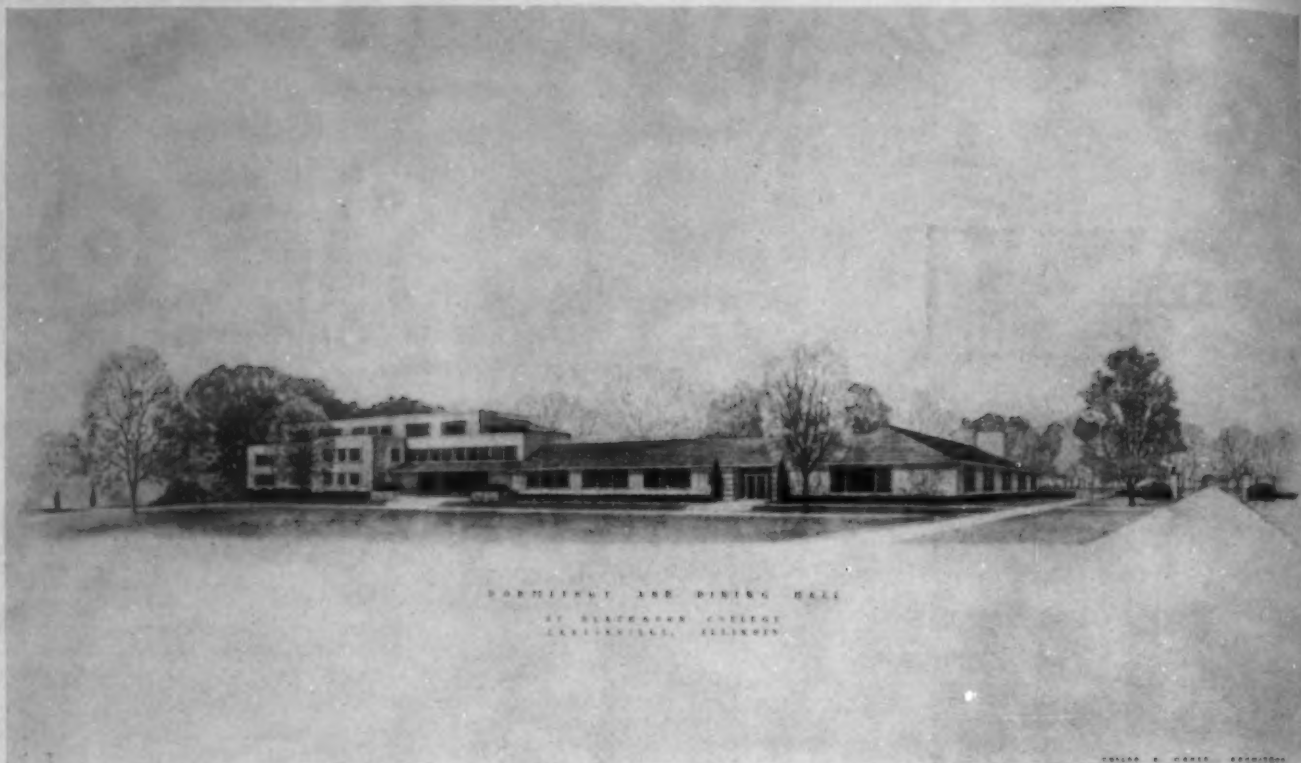
**LIGHTING:** Specially designed fluorescent cove and incandescent flood and spot lighting in lecture rooms; classrooms and laboratories, fluorescent lights in continuous ceiling coffers; coffer also used as raceway for various services to lab tables on floor above. Corridors and stairs lighted by continuous lines of cold cathode tubes.

**GENERAL:** No call systems, elevators, dumbwaiters, refrigeration or kitchens. Building planned for flexibility of future rearrangement of laboratory space. Design of column arrangement, floor beams, and window mullions on a 4 foot modular system will permit a wide range of interior arrangements within the main rectangular wings. All services and utilities essential to the operation of a science laboratory, such as electricity, gas, water, steam and distilled water, carefully laid out to run exposed along the ceiling, with branches serving the lab tables on floor above contained within ceiling coffer.

**SPECIAL FEATURES:** Lecture auditorium wing has seats of special design in molded plywood, mounted to a fixed metal pedestal by means of thick cushion rubber mountings; specially designed instructors' tables and projection machine cabinets; integrated lighting and acoustical ceiling treatment.

**COSTS:** \$1,000,000, not including land or fees, but including all equipment.

**CAPACITY:** Cubic feet, 900,000.



## AND SO TO BED—AND BOARD

**ROBERT W. McEWEN**

President, Blackburn College  
Carlinville, Ill.

A RESIDENCE HALL FOR WOMEN students and a new dining hall and kitchen are under construction at Blackburn College, Carlinville, Ill.

The residence hall, three stories in height, will be named in honor of the late George Herbert Jones of Chicago, whose initial gift for this purpose in 1937 is being used in its construction. Construction of the building has been made possible by a generous addition to the original gift by Mrs. William M. Allison of Chicago, daughter of Mr. Jones and a trustee of the college. In her honor the dining hall will be named Ruth Jones Allison Hall. Ground was broken last October and it is hoped that the building will be ready for use in September.

The dormitory will provide thirty-three double rooms, 13 by 17 feet, for students. A closet, chest of drawers, study table, chair and bed are provided for each resident. On the first floor of the west wing is a comfortable living room with five alcove date parlors. Access to a corridor leading to the dining

### CONSTRUCTION DETAILS

**GENERAL DATA:** Residence hall with double rooms for 66 students, single rooms for six faculty members. Dining hall seating 350.

**CONSTRUCTION:** Fireproof. Roof, burgundy tile. Exterior, reddish-brown face brick over 12 inch masonry slab; interior, gypsum block plastered. Windows, metal casement. Stairways, metal pan steel; cement treads covered with rubber tile.

**FLOORING:** Asphalt tile on concrete base. Entrance hall and corridors, rubber tile.

**CEILINGS:** Concrete, painted; acoustical treatment in dining hall and corridors.

**HEATING:** Steam, two-pipe, low pressure convactor radiation.

**LIGHTING:** Dormitory, incandescent. Dining hall, troffer fluorescent tube recessed in ceiling.

**CALL SYSTEM:** Buzzer to each room from main desk. Public phone on each floor; coin phone on first floor.

**REFRIGERATION:** Two large walk-in; two separate self-container units.

**KITCHEN:** Gas and steam. Stainless steel equipment. Kitchens excessively large because of student labor operation.

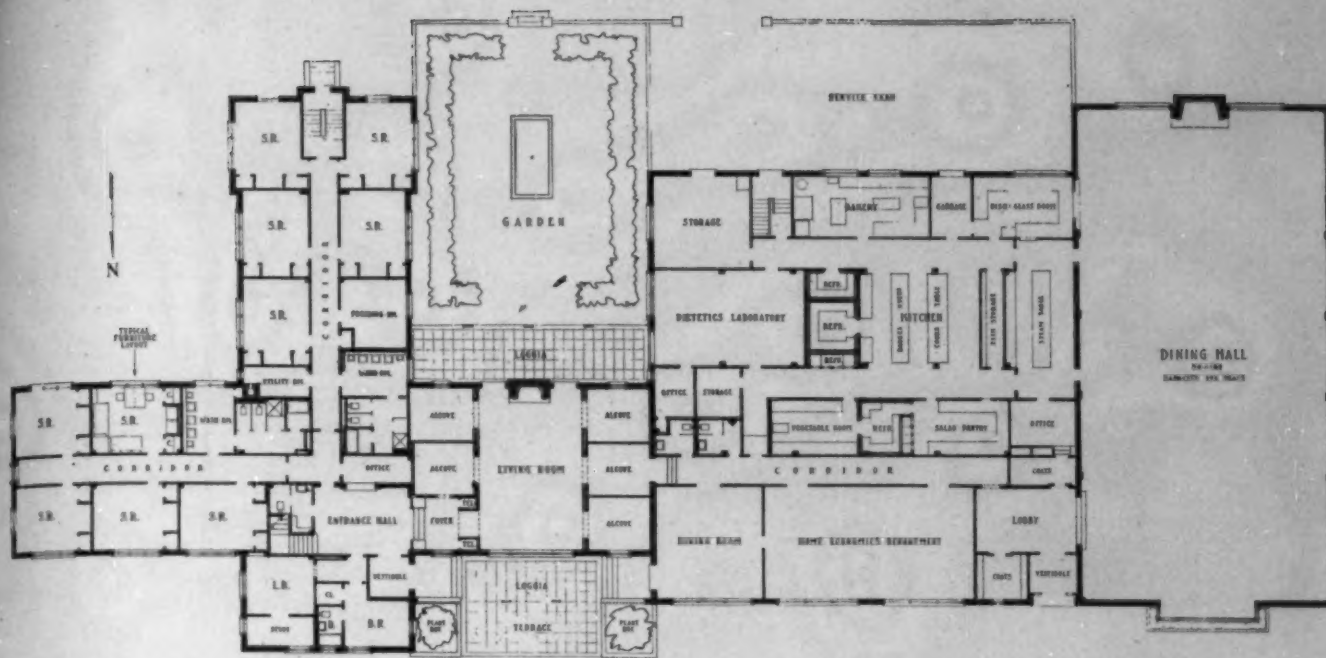
**SPECIAL FEATURES:** Bakery shop. Five kitchens for home economics department.

hall is provided from this living room.

On the second floor above the living room an apartment for six members of the staff is provided, with bath separating each pair of rooms. An L-shaped lounge is provided for staff members living in this wing. A sun deck is planned for the third floor. Storage space will be provided in a partial basement under the south wing.

The main dining hall will seat 350 persons. Its relation to the kitchens is planned so that both cafeteria service for breakfast and luncheon and table service for dinner can be arranged conveniently. Kitchen space is somewhat larger than would ordinarily be needed to serve from 300 to 400 persons. At this point especially, the building has been planned with special reference to the unusual program of the college. Students are selected on the basis of superior academic ability and relatively limited means. Every student works fifteen hours each week at and for the college. This work program, together with endowment income and annual gifts from friends of





First floor plan of new combined residence and dining hall at Blackburn College, Carlinville, Ill., Philip B. Maher of Chicago, architect.

the college, makes possible unusually low fees

Under the direction of a dietitian, who purchases foods and plans menus, all cooking, serving and dishwashing are done by students. Since no student is likely to be on a job more than two and a half hours at a time, the work plan requires generous work space.

The location of two foods laboratories for home economics courses and of a private dining room seating twenty-five, contiguous to the main kitchen, is also of special importance in the program of Blackburn, where classroom theory and practical experience are correlated whenever possible. Practice meals prepared in the laboratories or regular

meals from the main kitchen can be served in the private dining room. The new space for the department anticipates an undergraduate major in institutional management, of foods service especially.

Architect Philip B. Maher of Chicago has held costs to a minimum by the use of concrete slab construction.

## Announcing College Food Service Institute

RESERVATIONS ARE ALREADY COMING IN FOR THE College Food Service Institute being sponsored jointly by Northwestern University and COLLEGE AND UNIVERSITY BUSINESS. Institute sessions will be held in Chicago July 26 to 28 at the Knickerbocker Hotel. Fifty twin-bed guest rooms are being held for delegates.

Outstanding leaders in the food service field will serve as "faculty." A. G. Francis, director of dining services at the Illinois Bell Telephone Company, will discuss kitchen layout and equipment. His kitchen facilities recently received the grand prize in a national

competition for kitchen layout and equipment facilities. Edward Lee of Horwath and Horwath, nationally known food service accountants, will present methods for the accurate determination of food costs.

Additional faculty appointments for the institute will be announced in the June issue. Food service managers and their assistants are urged to make reservations early as enrollment is limited to 100 delegates.

The tuition is \$12.50, payable with reservation to Willard Buntain, director of residence halls and food service, Northwestern University, Evanston, Ill.



## CHAPEL SPROUTS A WING

**WEIR C. KETLER**

President, Grove City College  
Grove City, Pa.

EVEN SUCH A UNIQUE BUILDING AS A Gothic chapel can be enlarged without sacrifice of beauty or utility. Grove City College, Grove City, Pa., discovered this when the student body grew to a point at which the chapel's seating capacity of 900 would not suffice for regular morning services or at Sunday vespers.

At first thought it seemed hazardous to try to enlarge a seemingly perfect chapel, but after a study of the problem with the college architects, the W. G. Eckles Company of New Castle, Pa., a preliminary plan was prepared which provided for additions on both sides of the building. These, although not true transepts, would have much the same effect.

This plan was later discarded in favor of a single addition or transept, which

accommodates 180 persons. This was done with the thought that, if at a later time another addition would seem desirable, the seating capacity might ultimately be raised to 1260, as compared with a maximum of 1108 under the first plan.

In the development of the final plan for the new addition, or modified transept, care was taken not to disturb the inner harmony of the nave. By carrying the inner edge of the roof on a steel beam supported by concealed steel pillars, it was possible to construct the new section without disturbing the stone aisle arches or the clerestory wall above them.

The ceiling of the addition is beamed in oak and is treated with acoustical tile. The floor is concrete with a mastic tile surface except in the aisles where slate

in variegated colors has been used. Stained glass windows follow the pattern adopted in the original building and depict incidents in early church history.

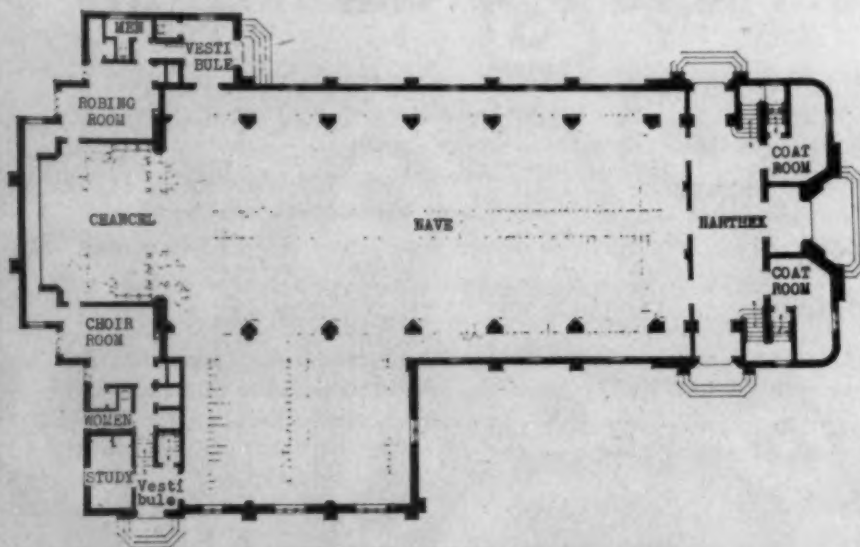
Until such time as oak pews similar to those in the original building can be obtained, temporary seating is being used.

A small office for the use of the college pastor and for those responsible for the chapel music is also a part of the addition.

Exterior walls are of shot-sawed Briarhill sandstone with a trim of Indiana limestone, in keeping with the original structure. Care was taken not to disturb the chapel garden, and in the grading, approaches and planting around the addition, the landscape architects, Olmsted Brothers of Brookline, Mass., were consulted. Their suggestions have had an important effect in integrating the structure.

From many points of view, the exterior of the building gains through the added mass, and in the interior there is a feeling of spaciousness that gives added interest and charm. The acoustics actually have been improved.

The cost of the addition, including the general contract, architects' fees, lighting fixtures, and windows, was \$45,000. The cubic foot cost was \$1.27; this relatively high cost was due, in part, to the comparatively small size of the project and also to the fact that the construction work involved the removal of sections of the older building and other problems.





IN THE ERECTION OF MOST BUILDING structures, it is to the owner's interest that a clerk of the works be employed. This should result in lower total construction cost, reduced maintenance and operating expense, and greater satisfaction because of fewer extras, mistakes, defects and differences of opinion.

The architect and his associated engineers cannot ordinarily give the daily, thorough and minute attention that is required in projects costing several hundred thousand dollars or more. Nor should this be expected at the usual fees. The architect's obligation for supervision is not lessened in any respect but is supplemented and strengthened by the continual presence of the clerk of works at the site.

The clerk of works is the hub of the wheel, acting as mediator among the architect, the owner, and the contractor. He should be employed by consultation between the architect and the owner, at the owner's expense, and should be acceptable to the contractor. The cost of the clerk of works and his assistant, when required, should come to less than 1 per cent and frequently to less than 0.5 per cent of the total cost of the job.

His primary interest is to see that the work is carried out according to the plans, specifications and the stipulations of the contract. One of his first duties, therefore, is to become thoroughly acquainted with these documents and with all personnel concerned in the planning and construction. He should also familiarize himself with the site, topography, boundaries, obstacles and existing utility lines, such as water and gas mains, sewers, telephone cables, steam and condensate lines. A working knowledge of applicable codes, ordinances and laws must also be acquired.

The clerk of works should prepare, with the cooperation of the contractor and the counsel of the architect, an intended schedule of progress. This may be delineated by listing various branches of the work, as they appear in the specification, in a column at the left edge of the diagram, followed by columns representing successive months, as shown in the illustration. Solid lines drawn through the various months opposite each item indicate the expected start and duration of each class of work. Dotted lines, added at weekly intervals during construction, show the actual results. The charts should be made on durable

*Schedule of Progress  
Dormitory #3, Educo University*

	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.
Preparation of Site	---											
Excavation	---											
Foundation & Footings		---										
Rein. Concrete			---									
Brickwork				---								
Cut Stone					---							
Misc. Metal						---						
Carpentry							---					
Roof. & Sh. M.								---				
Waterproof.									---			
Partitions										---		
Plaster											---	
Marble & Tile												---
Acoustic												
Painting & Gl.												
Shades												
Elec. Work												
Plumbing												
Air Cond.												
Paving & Planting												

## CLERK OF THE WORKS

**E. E. BRYAN**

Superintendent of Buildings and Grounds  
Vanderbilt University

tracing material so that prints may be made for all interested parties when desired. Dated photographs are invaluable in confirming the schedule and in refreshing the memory.

The progress diagram should be supplemented by a schedule of values, including unit prices, of the different divisions of the work and quantities of materials and equipment, prepared by the contractor and checked by the clerk of works. These two documents will facilitate the progress of the work and prevent delays by indicating the dates on which all items must be delivered. These schedules are necessary, also, in checking periodic applications for payments.

Copies of all records, contracts, correspondence, bulletins, change orders, applications for payment, certificates of payment, specifications, plans, shop drawings, and reports should be properly filed for ready reference and for ultimate delivery to the owner. Some architects and owners require daily reports

showing weather conditions, numbers of men at work in each trade, work accomplished, materials and equipment delivered, visitors, comment as to unsatisfactory results, forecasts of materials or labor required in the near future, and other pertinent remarks.

### HIS CHECKLIST

The clerk of works should check all lines and levels, and also the quality of materials and workmanship. The reports of the inspectors of cement, concrete and steel must be obtained promptly so that all necessary corrections may be made before further damage is done. Reports of the supervisory visits of all specialists employed in the design of air conditioning, electrical work, and the like should be studied, especially as to the state of the work and the value of work completed to date.

The clerk of works has no authority to permit deviations from the contract documents except by written approval of the architect. If changes are of a

serious nature, the owner's consent should be obtained by the architect. Informal discussions with all concerned must necessarily go on daily, but all decisions should be in writing.

The clerk of works must possess a remarkable combination of qualifications. As to character, he should be honest and dependable. He should have some of the training of both the architect and the engineer, as well as the broadest possible knowledge and experience with materials and construction practices in the various branches of the work. He should be a good diplomat as, with little authority, he must gain

the cooperation and good will of the contractor, subcontractors, foremen, mechanics, laborers, materials men, officials and all others concerned in the project. He must coordinate the work of all without being officious and must never transgress on the functions of the contractor's superintendent and foremen. He must be fair in making interpretations and decisions. He must think clearly and quickly, be energetic and tireless, and be endowed with "horse sense."

The question of when the clerk of works should be employed is usually raised at too late a stage, when plans and

specifications have already been completed and the contract has been let. The clerk of works should be on the job at least six to eight weeks before construction begins so that he can become familiar with the plans and specifications and local conditions, as well as with the persons with whom he is to work so intimately. If a man with the necessary qualifications can be found, it would be desirable on many projects to bring him into the picture still earlier in order to assist on the surveys, collaboration with architects and engineers on planning, clearing the site and letting the contracts.

## HOW WE HANDLE FEE ASSESSMENT CARDS

**F. E. OLIVER**

Assistant to Controller  
and Manager  
Statistical Service Department  
University of Iowa

AT THE STATE UNIVERSITY OF IOWA, assessment of student fees was handwritten on 3 by 5 inch cards prior to 1947. This procedure was replaced in February 1947 with the use of prepunched tabulating cards, which has successfully proved to be a time and labor saver.

Two principal reasons made it easy to install this method of assessing fees: the existence of a single comprehensive student fee, and the existence of a system of prepunched student class and master cards operating through the statistical service department at the university.

Each college in the university has its own comprehensive fee, which varies only for nonresident students and for those carrying less than full-time loads. With this small number of variations, it is possible to prepunch and interpret a sufficiently large number of fee assessment cards for each of the categories.

### AT FEE ASSESSOR'S STATION

This supply of prepunched cards is arranged by credit load, residence, veteran status, and college and is placed at the fee assessor's station on registration days. This station is located at the end of the registration line, where all stu-

dents turn in their materials upon completing registration. Here the courses of study, residence and veteran status are checked, and the tabulating cards are arranged in proper sequence (student master card in front of class and directory cards) for processing through tabulating equipment. At this point the fee assessment card is inserted behind the class cards in each student's group of cards.

This hand selection of the proper prepunched tabulating card and its placement with other tabulating cards belonging to a student actually constitute the fee assessment procedure.

All tabulating cards are taken to the statistical service department where they are immediately and currently gang punched (master to detail) for the transfer of student name and other information to class, directory and fee assessment cards. The cards are then machine separated for their various functional uses as follows: master cards for registration counts, class cards for class lists, directory cards for printing student directory, and fee assessment cards for subsequent collection and accounting of student fees.

The fee assessment cards are then sorted alphabetically and are sent to

the treasurer's office. Here they are picked up by the student and presented at the cashier's window for paying fees. (Veterans are not required to appear at the cashier's window, their fees being entered by intramural transfer prepared from veterans' fee assessment cards, which are red.)

### QUICK, CHEAP, ACCURATE

After being rung up by the cashier on an accounting machine as each student pays fees, these cards are attached to the day's cash receipt voucher and are sent to the statistical service department for processing in general accounting procedures (also on a punched card basis). Here they are reproduced to subsidiary student fee register punched cards to initiate accounting entries, after which they are returned to the registrar's office to become a permanent part of each student's file record for the current session.

This system has been found to be rapid, economical and accurate. It leaves a complete audit trail through its accounting phases and the prepunched card resides finally as a part of the material with which it originated, thus being available for inspection and audit at all times.



THE FACT THAT NEARLY ALL THE states have constitutional provisions prohibiting the direct appropriation of public money to religious or sectarian institutions is significant, but its importance could be overestimated and its meaning overdrawn. Every state grants to reputable nonprofit educational institutions, whether denominational or nonsectarian, the privilege of exemption from taxation to some extent, which is unquestionably the equivalent of a direct public subsidy. This is one of the best illustrations of the principle that, although we maintain a general separation of Church and State, these two institutions of society also maintain mutually helpful relationships. The separation is not and never has been absolute and complete.

#### PUBLIC WELFARE HAS PRECEDENCE

The U.S. Supreme Court a dozen years ago held unanimously that it is not unlawful for a state to provide free state approved textbooks for pupils in state approved denominational schools. The theory was that this is primarily an aid to the pupil toward getting an education in the school of his choice, and only secondarily and incidentally, if at all, an aid to the school. The same high tribunal, and half a dozen state supreme courts as well, has more recently held that a state may properly permit its public school districts to provide free transportation for pupils traveling to and from private or denominational schools. In some of these decisions the element of safety from traffic hazards and health hazards was an important factor in the favorable conclusion.

During the last fifteen years the national government has been almost continuously active with one or another large nationwide program designed to maintain and increase the availability of college and university education to worthy students who might otherwise be deprived of that opportunity by the practical barrier of lack of private financial resources.

In these large programs the federal government has generally made no sweeping distinctions between public and private nonprofit institutions but has treated all alike. In support of this policy some admirable theories can be cited, such as: (1) freedom to choose one's college is a freedom we cherish and maintain; no device should be allowed to deny it to the impecunious while preserving it for others, and (2) in time of great overcrowding of facili-

## PUBLIC AID FOR DENOMINATIONAL COLLEGES

M. M. CHAMBERS

American Council on Education



ties for higher education, it is sensible and economical to use and extend all existing facilities at least until the limit of demand for a given type is approached.

The student work program of the National Youth Administration (1935-43), whereby the national government paid limited compensation to needy students for work planned and supervised by their colleges or high schools, was installed in public and private nonprofit institutions without distinction. The same is true of the educational provisions of the Veterans' Readjustment Act (1944), under which the national government pays the student veteran a subsistence allowance and pays to the school or college the tuition and other charges for each such student, not to exceed \$500 per year. Federal surplus property usable for housing student veterans and their dependents, or for housing necessary additional temporary classroom facilities, or as instructional equipment, when leased, sold at heavy discounts, or when given outright to educational institutions, went generally with little discrimination to either public or nonprofit institutions qualifying for these benefits.

There are old and strong precedents to the effect that a state may properly contract with a private or denominational institution for educational services and that such a contract for services, if the compensation is reasonable, does not constitute state aid to the institution. After World War I, Wisconsin enacted a veterans' educational bonus law permitting qualified veterans to attend any reputable school or college of their choice within the state and providing that the state would reimburse each such institution for the additional costs thereby incurred. When this was chal-

lenged as an unconstitutional grant of state aid to a denominational institution, the Wisconsin supreme court declared: "Mere reimbursement is not aid."<sup>1</sup>

#### HOUSING AID BY NEW YORK STATE

New York's current State Emergency Housing Act authorizes allocations of state money to colleges and universities for additional student facilities, and under this act allotments have been made to several Catholic colleges in the state. A taxpayer in Buffalo, suing to enjoin the allocation of \$128,000 to Canisius College, has lost his case in the trial court and also in the appellate division by a vote of 4 to 1 of the judges.

The decision did not turn upon the actual issue of unconstitutionality of the act, however, because the complainant is barred by another New York statute which prevents the bringing of such a suit by an ordinary citizen and taxpayer and allows it to be brought only by a taxpayer who can allege and show that he is suffering a special and particular grievance as a result of the act he challenges.<sup>2</sup>

No doubt the question will be litigated farther in New York State. Enough has been said in the foregoing brief sketch to indicate that a categorical and rigid formulation of state and national policies in this area is not easy. Somehow a balance must be struck, under which individual freedom to choose a private or denominational college will be scrupulously preserved; under which existing higher educational facilities will be utilized and economically extended as far as the demand for a particular type goes, and under which funds collected by general taxation will not be appropriated directly and exclusively into the control of private denominational or sectarian bodies.

<sup>1</sup> State ex rel. Atwood v. Johnson, 170 Wis. 257, 176 N.W. 224 (1920).

<sup>2</sup> Decision of the New York Appellate Division, Third Department, as reported in the New York Times, March 24, 1948.

# "SUPERMARKET" TECHNICS IN A *Bookstore*

**ROBERT F. NEWTON**  
Manager, Butler University Bookstore

Careful checking of veterans' books is an important feature of the serve-yourself supermarket method inaugurated at this bookstore.



LACK OF SPACE AND THE RESULTING limit on personnel to handle rush business at the start of each semester have produced a unique and successful experiment at Butler University, where "supermarket" methods have been adapted by the bookstore to provide book and school supplies to thousands of students in the shortest possible time during registration periods.

Continuing to operate in the same quarters they have had for the last twenty years, bookstore employees at Butler are now having to handle approximately four times the volume of business handled before the war. Adequate to serve normal enrollments, the bookstore found itself swamped when registration figures tripled.

By separating the veterans' supply center from the regular bookstore facilities during the first week of each registration period and by establishing the chain store, self-service method in distributing textbooks, we have been able to increase the efficiency of our organization to a point at which waiting in line is kept to a minimum and employees still have time to render "service with a smile." Nonveteran students continue to receive other supplies from the bookstore proper.

Preparations for the rush registration period start approximately three months in advance, when the bookstore supervisor sends requisitions to every department head in the university requesting information on texts and materials needed for the coming semester. Accompanying the requisitions are veterans' forms (needed to comply with Sec. 7 of the Veterans Administration Manual M7-5), which also are filled in by department heads.

Returned requisitions and veterans' forms are screened, compared with one another, compared with the bookstore inventory, and texts and materials are ordered for the new term. During the screening, text and materials changes are noted and compared with the quantity on hand and, if the stock is too large, department heads are notified and asked not to substitute (unless material is out of date).

In order to provide up-to-the-minute information for department heads as

well as for the bookstore, purchase orders are prepared in duplicate, the original being sent to the publisher with a request for acknowledgment and shipping date. The duplicate is filed in the bookstore office for future reference. Subsequent information received from publishing houses is noted on the duplicate form, and department heads are notified as to the latest developments on their individual orders. Upon receipt of textbook and materials orders, a receiving report is made and marked as to cost and selling price. New items are then listed on the bookstore's perpetual inventory and locator system which is kept in the storerooms at all times.

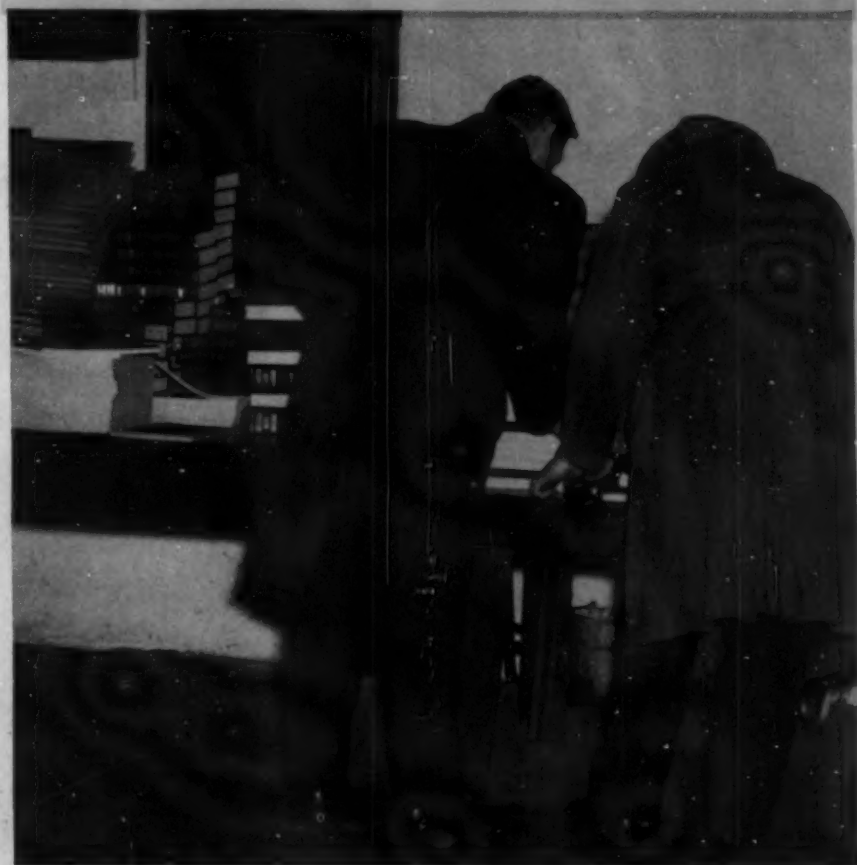
To simplify further the veterans' book and supply problems, book lists are made up by colleges and departments and are made available on the first day of any registration period. Students, veteran and nonveteran, are asked to make lists of needed texts, the veteran listing his courses on one side of a 4 by 6 inch card and the texts needed on the reverse side. This card is checked twice before the veteran enters the "supermarket" (a large room in which texts have been arranged in open stacks), where he serves himself. A careful check is made to determine that each veteran has the right texts and that his account is charged with the proper amount. Veterans' accounts are audited monthly with class cards being checked against books issued. If there are any inaccuracies the veteran is called to the bookstore to straighten out his account.

At the completion of each semester veterans' account cards are totaled as to books and supplies purchased and are forwarded to the bursar's office for the preparation of disbursing office vouchers. When checks are received from the government they are routed to the bookstore, where account cards are stamped "paid" and refilled.

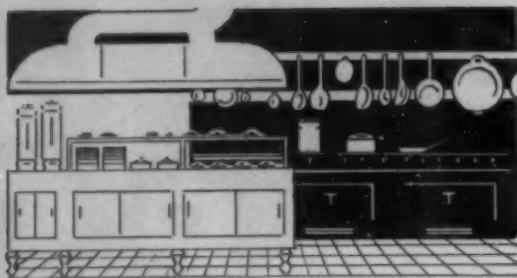
Butler University has satisfactorily met the need of adapting present facilities to the requirements of heavy enrollments without running the danger of overexpansion. Proof of the efficiency of the new system is a student body satisfied with rapid service.



Registration rush periods are smoothing out a bit since the bookstore at Butler University started using chain store, self-service technics.







## DOUBLE TROUBLE, OR TOO

**HOWARD D. HENRY**

Manager, Branch Cafeteria Unit  
University of Wisconsin

DURING THE PAST SEVERAL YEARS colleges all over the country have taken the opportunity to get additional classroom and feeding facilities from the federal government under the Lanham Act. The old adage not to look at the teeth of gift horses has certainly been proved wrong in connection with some of these properties, especially those that many of us have been granted for additional feeding facilities.

Looking the gift horse over carefully does not mean any lack of appreciation for the tremendous assistance given to the colleges of the country by the federal government in meeting the load placed upon them by the return of the G.I. to the campus. It does mean, however, that many of us have been saddled with a new and difficult problem in operating these auxiliary dining units.

### A MILE AWAY

At Wisconsin one of the federal gifts has taken the shape of a cafeteria seating 350, operated by the union building staff but located a mile from the parent union building. The war surplus structure, which was necessarily accepted "as is," was a completely independent unit, equipped with full kitchen and all the rest of the facilities necessary for independent food service.

Difficulties in procuring required kitchen equipment from the federal agencies disposing of war surplus goods and the expense and discouraging delivery dates of new equipment brought about an early review of the entire theory of operation. In the course of this review the possibility of servicing the proposed unit with food from the central kitchen at the union building presented itself.

Studies were made comparing the cost of operating the cafeteria as an independent unit with a full staff for food preparation with the cost of operating the unit when the majority of the preparation was done in the central kitchen at the union. For planning purposes, it was assumed that 1200 people

would be served at each of the main meals. Breakfast was not considered because, under either plan, this meal was to be completely prepared at the new unit. This comparison indicated that the system utilizing the central kitchen should require from nine to eleven less employees than did the independent unit plan. (This figure takes into consideration the necessary increase in the central kitchen staff and in the trucking staff required to handle the additional load.)

Here was a promising answer to help shortages, equipment delays, and high operating costs.

Since the plan looked so favorable on paper, there remained the major problem of devising a practical method of getting the food from the mile distant union kitchen to the new cafeteria efficiently and without impairing food quality.

Attempts were made to locate some other institution or organization that was serving food in this manner on a similar scale. No success was encountered. Some places transported a few items, but none moved food on a scale that seemed particularly akin to our situation.

The more we studied the matter, however, the more it seemed that the only feasible method of operation was to abandon the idea of running a complete

kitchen at the branch cafeteria. This automatically reduced the total outlay required for equipment, since only a few additions were required in the central kitchen to achieve capacity sufficient to handle the new load, whereas a very considerable quantity would have been required properly to equip the branch cafeteria.

In addition to the benefits already mentioned, still another occurred to us: With all the food being prepared in a central kitchen the likelihood of unfavorable comparison between what the union kitchen was producing and what the branch was offering could not legitimately be made, since it was all the same and produced by the same cooks, the only possible change coming from the transport of the food.

### THE EQUIPMENT

In our analysis we found that equipment peculiar to the method of operation was required. The most obvious piece of equipment was a motor truck. Any one of several available kinds is satisfactory. We kept an eye on headroom and wide access doors to simplify the movement of containers into and out of the truck; the door dimensions are the limiting factor on the size of the food truck. For the smaller food trucks to be wheeled into the motor

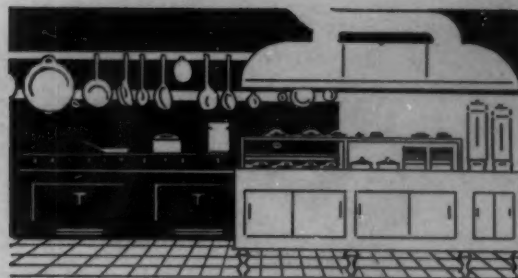
Battery of "pass-through" containers used for holding all nonliquid hot foods. The other side of the warming unit opens just behind the steam table in the cafeteria line.



# TOO MANY KITCHENS

**DOUGLAS C. OSTERHELD**

Assistant Director, Wisconsin Union  
University of Wisconsin



truck there must be some means of fastening them so they will "ride well"; such food trucks reduce the amount of handling of any food item to a minimum.

The second requirement was for the actual containers that carry the food. To transport liquid, semiliquid and some types of solid foods, we selected a vacuum-type of container. This piece of equipment is a production item and is available in several sizes. It is made of stainless steel and the top seals tightly to prevent heat loss and spillage. It is easy to keep clean and durably constructed to stand the tough handling that is encountered.

Preheaters were established at both ends of the run which facilitated rinsing the food containers with 180° water and with a live steam rinse so that they would be properly sterilized and preheated and so that the food is delivered in good condition. We use them for soups, gravies, stews, mashed potatoes, vegetables such as peas and corn, wieners, sausages and any other item that can be handled in and out of a container without damage. To transport the remainder of the food a four-shelf food truck was selected.

Each shelf has its own door, which is nearly air tight, and each will carry four 12 by 20 steam table pans, either the standard or the deep type. We procured four of these trucks, two electrically heated and two that are unheated. The electric trucks are preheated before food is put into them and, although not insulated, they deliver the food in good condition under the most adverse weather conditions.

Typical food items that are transported in these trucks are: chops, cutlets, casserole dishes, macaroni, roasts and such vegetables as broccoli and asparagus that must be transported "flat" to prevent damage. The unheated trucks are used for desserts, salads, cakes and, by inserting adapter racks, for pies.

The third requirement from an equipment standpoint was for somewhat larger

than usual holding facilities at the branch so that the food may be properly maintained until it is served. For this purpose we utilize, in addition to the indispensable bain-marie, three electrically heated warming units. Each of these has six compartments, separately vented for moisture control, and each compartment has a door on both ends so that pans or small steam table jars of food may be inserted or withdrawn from either side. Located, as they are, behind the serving line steam table, these units greatly facilitate supplying the "line."

A similar type of unit, refrigerated instead of heated, is located near the dessert-salad serving section to supply that department with its needs.

## OPERATING PROBLEM

The problem of calculating "how much of what will be needed when" is the difficult part of operating a cafeteria when the source of food is remotely located. Because of the distance involved, considerable advance planning and estimation are vital to the solution of the problem.

At the branch cafeteria, three entrées are offered at each meal. While certain items always seem to sell well regardless of the combination in which they are offered, many more may sell well one day and not so well on the next when the choice of entrées is slightly different. This variable interplay of items on the menu makes the calculation of demand difficult.

If a crystal ball were available to predict accurately what items to order the problem would be nonexistent. Our crystal ball has taken the form of records of our experience of operation. By setting up this record of experience by meals, by days, and by fifteen-minute intervals, we have been able to arrive at a reasonably accurate basis for prediction of what the original order from the central kitchen should be. There isn't always a pattern which is followed, but by a careful study of what is occurring

in the line on a given day and relating it to past experiences, reasonably successful predictions for reordering are effected. Items involved include the length of line waiting to be served, the activities' calendar, the number served so far and the like.

Thus it will be seen that past experience is used as a basis for the original order of food, and the experience of the day is related to past experience to arrive at the second order obtained from the kitchen during the serving period. The food trucker waits in the central kitchen for the second order, which is placed after about half of the total serving period has elapsed. He is able to deliver the second order in ten to fifteen minutes. A direct telephone line between the two units is provided.

## COMMENTS ARE FAVORABLE

In spite of the variation from day to day and meal to meal in the size of the crowd and in their eating habits, the type of observing we have done, related always to past experience, has produced unusually good results. The amount of food returned to the central kitchen is no larger than that from other units within the main union building itself. Emergency items, such as canned wieners, pork and beans, and canned vegetables, are stocked so that fill-ins can be effected in case of run-outs.

If the problem of estimating the number of customers and customers' choices could be eliminated there would be nothing difficult in operating a branch food unit supplied from a central kitchen. Supplying a branch dining room serving a fixed number of patrons a standard meal would be simple indeed.

In addition to the balance sheet, the customer is the final answer to one's success in operation. Customer comment has been favorable, with one patron going off the deep end in an appreciative letter which stated that he was very grateful to have the new cafeteria because the food was so much better than that served in the union!



# THE SECRET OF *Campus* BEAUTY

VISITORS TO THE CAMPUS OF THE Northeast Missouri State Teachers College are prone to exclaim, "This is the most beautiful campus I've seen!" Such visitors usually have little appreciation for the careful planning or the devotion to detail required to produce such beauty.

The development of a beautiful campus can be achieved only by long-range planning and day to day attention to detail.

This effort to describe some of the details in connection with the beautification of the campus will undoubtedly fall far short of actual requirements. It might, however, be said that the one cardinal principle which must be religiously followed is *constant care*.

Kirkville, Mo., in which city the college is located, is situated in northeastern Missouri at latitude 40° 12" N. Rainfall averages 38.73 inches, most of which falls in the warm season. The frost-free growing season is 172 days. Topography and soil conditions are much affected by glaciation and subsequently by erosion and leaching.

One of the prime requisites for attractive grounds is a beautiful lawn. Here the general principle of landscaping to leave a wide, open expanse of lawn is carefully followed. To achieve a firm sod of bluegrass, seeding is practiced each year with special attention given to winter killed or otherwise damaged spots. Seeding is done in the early spring, and preferably when there is a light snow on the ground.

The first spring cutting of grass is delayed as long as possible until the new grass has become firmly rooted and has made substantial growth. Care is taken to cut the grass at least 2 full inches above the ground. Subsequent cuttings are dependent upon moisture and growth, although under normal conditions the mower is used once each week.

During the hot summer months it sometimes becomes necessary to water portions of the lawns that appear to be in danger of being killed. Watering is accomplished by letting the revolving sprays operate until the ground is soaked at least 1 inch in depth. Newly

seeded spots are, of course, likely to require more watering than old established soil requires.

Mowers that operate with blades parallel to the ground are used, except in small areas where hand mowers or hand clippers must be employed. From time to time commercial fertilizers and barnyard manure are used to give the grass added vigor and strength.

## TREES

One of the greatest problems involving the use of trees is the selection of types and varieties that will survive climatic conditions as well as withstand the many insect pests. This particular section of the Midwest is susceptible to occasional sleet storms that can break up all but the hardiest trees. Consequently, only those trees having demonstrated their ability to carry heavy burdens of ice and wind are planted. These limitations fortunately permit a wide variety of trees to be used. At the present time there are more than 25 different kinds of trees ranging from the American elm to the Chinese ginkgo.

In general, the hardwood variety, such as the oaks, elms and hard maples, is most successful, although dogwood, weeping willows, ash, flowering almonds, and many others flourish.

Pfitzer junipers in foreground as part of outline planting at the campus entrance. Iris beds are shown under soft maple and near doorway.





# IS CONSTANT CARE

**ROBERT L. McKINNEY**

Assistant to President  
Northeast Missouri State Teachers  
College, Kirksville

Considerable difficulty is experienced with borers and other insects of the worm type. Tree trunks are carefully inspected each spring for evidence of insect injury. Those found to be infested are gone over with a small pen knife to remove the borers. In the case of the elms, bands of sticky materials are placed around the trunks to prevent the caterpillars of the elm cankerworm from crawling into the branches to devour the leaves.

Young trees are planted in the spring while dormant and are secured in position by guy wires. The wires are left in place for at least two growing seasons until a firm root system has been established. For the first four or five years it has been found desirable to provide additional nourishment for young trees in the form of root fertilizer. Holes are bored in the earth some distance from the trunk of the young tree and the prepared fertilizer is placed in these holes. Young trees treated in this manner make much more rapid growth and, in general, seem far healthier than those untreated.

Ornamental trees such as the weeping willow, hawthorn, wild cherry, holly tree, sycamore and redbud are used for accent purposes and to provide variety and color to the plantings. Betchel's flowering crab is also an effective tree for accent use.

When trees for quick growth are needed the Chinese elm and soft maple are usually employed. Normally, companion trees of a more permanent character are also set out, and when they have attained sufficient growth the quick growth trees are removed.

In the past tree surgery has been used to preserve older specimens, but, in general, trees that require this type of preservation are no longer planted.

## SHRUBS

As may be noted in the accompanying photographs, shrubs are widely used. However, closer examination will reveal that again the landscaping principle of their use as foundation plantings and around the borders is followed.

Sunken garden at Northeast Missouri State Teachers College, showing formal treatment using hedge, dahlias and petunias.



Great care must be used in the selection of shrubs for foundation plantings. We often use the taller evergreens at the doorways and corners of the building, while lower junipers are placed in front of the windows. Space will not permit a detailed explanation of the methods of employing shrubs to obtain a maximum effect. However, in general the border and foundation type of planting is followed, with occasional use for screening purposes and to give depth and perspective to the landscape.

Climatic conditions permit a wide use of types and varieties of low, medium and tall shrubs. The following are to be found flourishing: lilacs, sumac, honeysuckle, spiraea, hemlock, taxus, Oregon grape holly, firethorn, pfitzer junipers, Colorado blue spruce, eunonymus and forsythia.

Hedges of privet, barberry and viburnum are found to be satisfactory for border use and where a formal treatment is desired. (Note employment of hedge in the accompanying photograph of the sunken garden.)

Like trees, shrubs are planted in the spring and carefully tended during their initial growth. After substantial growth has been achieved, yearly prunings keep them vigorous and healthy.

## FLOWERS

An abundance of beautiful flowers is the crowning achievement that distinguishes this campus from many another. From early spring until late fall there is a continuous procession of flowers in bloom.

The crocus, grape hyacinth, and naturalized narcissus are the first flowers

of consequence to appear in this locality. Of the last the King Alfred and Empress are most successful in this climate. Effective use of the grape hyacinth is obtained by using it as an outline planting along the walks. Peonies are also early bloomers and popular flowers.

Large iris and tulip beds produce delightful mass color effects in the early spring. Iris, being a hardy flower, will withstand dry weather, and the many varieties now obtainable permit a wide range of colors. In numerous places iris serve as border plantings along infrequently used walks and in front of border shrubs.

Tulip beds are top worked as early as soil conditions permit, and commercial fertilizers and organic manures are applied to give flowers a quick and vigorous growth. New plantings are made in the fall. Weeds are kept down by frequent shallow cultivation. During winter months a mulch of wood shavings or excelsior is applied to prevent heaving during freezing and thawing.

As soon as the tulips have bloomed and gone, petunias, marigolds, geraniums or cannas are planted to continue the mass color effect.

Marigolds, geraniums, snapdragons, cup flowers, ageratum and other annuals follow the iris and are in turn succeeded by day lilies, dahlias and hardy chrysanthemums in the fall.

No mention has here been made of many other flowers, such as jonquils, pansies and perennial asters, of which occasional use is made. Their use should not be overlooked when planning for variety and continuity of bloom.

# QUESTIONS AND ANSWERS

## Morale Building Schemes

**Question:** Besides salary as a motivation for good employee morale, what experiences have other institutions had with the following: employee-management committees, group insurance and health benefit plans, organized safety programs, visiting nurse, recreation plans, retirement plans, and suggestion plans?—A.W.P., Wis.

**ANSWER:** To the best of my knowledge, formal employee-management committees have not been used in many institutions. We are fairly well organized along that line at Illinois and believe these committees have many advantages in promoting better understanding. Among other things, these committees work out our recreational and social activities and safety programs; do editorial work for our house organ; sponsor forum programs, and help in job evaluation. There is a general funneling both ways of many questions and answers.

Most institutions make group hospitalization available to employees. Only a small proportion has provided any sort of group life or disability insurance. Nearly all allow some sort of disability leave with pay, two weeks a year being the total most commonly used.

Campus safety programs offer much room for improvement. There may be some college or university with a safety program that measures up to the accepted industrial standard. If so, I have never heard of it. A good look at our frequency and severity rates should give us an incentive to get to work on this problem.

At Illinois we are sold 100 per cent on the visiting nurse. Our absentee rate has fallen; sick leave is better controlled; accident claims get better handling, and, what is most important, our employees get the idea that somebody cares about them when they are feeling low.

Not much is being done in the way of recreation at our institution: a few parties a year at suitable seasons, a few bowling leagues and the like about summarize it. There is much room for development of such a program on most campuses.

About half of our colleges and universities provide some sort of retirement plan for nonacademic employees. More are working on one. The rest should.

As to suggestion plans there is not a single good reason why we shouldn't use this idea which has accomplished so much for industry. If anybody has inaugurated a suggestion plan on campus, he ought to beat the drums a bit. We are working on it at Illinois but aren't ready to go just yet.—DONALD E. DICKASON, *director, Office of Non-Academic Personnel, University of Illinois.*

## Restricted Sales Agreements

**Question:** Is it lawful for certain concerns which sell duplicating machines to stipulate that they will not provide free service unless we use their paper and other products exclusively in these machines?—N.B.B., Mass.

**ANSWER:** Several factors apparently are involved here, one hinging on the interpretation of the word "free" and the other depending upon the intent of the free-service limitation.

In response to inquiries from better business bureaus and various industries, the Federal Trade Commission early this year ruled that if the "free" offer is not in effect a gift, it is in violation of the Federal Trade Commission Act.

The interpretation, released to newspapers on Jan. 30, 1948, reads as follows:

"The use of the word 'free,' or words of similar import, in advertising to designate or describe merchandise sold or distributed in interstate commerce, that is not in truth and in fact a gift or gratuity or is not given to the recipient thereof without requiring the purchase of other merchandise or requiring the performance of some service inuring directly or indirectly to the benefit of the advertiser, seller or distributor, is considered by the commission to be a violation of the Federal Trade Commission Act."

Other considerations arise. Does the practice in question stifle competition or promote monopoly? Is the concern engaged in interstate commerce?

We are advised that as a general principle of law, a concern has the right to choose its own customers and to refuse to sell to another for any reason sufficient to itself. But this decision must be based on its own independent judgment. If it is due to a combination, understanding or agreement with, or on the part of others, the action would be termed an unlawful restraint of trade or interstate commerce.

If the concern is engaged in interstate commerce, it would be subject to the Clayton Anti-Trust Act. In substance, that law provides that:

"It shall be unlawful . . . to make a sale . . . of goods . . . or fix a price charged therefor, or discount from, . . . or rebate upon, such price, on the condition . . . that the . . . purchaser . . . shall not use . . . goods . . . of a competitor . . . where . . . such condition . . . may be to substantially lessen competition or tend to create a monopoly."

One legal authority is of the opinion that under these provisions the practice of offering free service with a machine only if the seller's products are used might be interpreted as a rebate. But another condition arises: If the duplicating machines are sold without limitation, and if the seller will service them—for payment, then there is a question whether the free servicing would be considered a rebate.

And if it were a rebate, it would be necessary to prove that there is a tendency to lessen competition or create a monopoly.

The free-servicing limitation would be legal, this authority believes, if the seller can establish that the limitation is not a rebate but rather was imposed because of higher cost of servicing machines when other than the seller's products were used.

Obviously, there are many "ifs" and "ands." The Federal Trade Commission can advise more completely if the facts are submitted in detail. Inquiries should be addressed to its Office of Legal Investigation, Washington 25, D.C.—M.T.



# NEWS

*Wants Draft to Consider Science Students . . . To Vote on Interstate Colleges for Negroes . . . President Wants Long-Range Plan for Peacetime Surplus Property . . . Social Security to Nonprofit Schools? . . . Bookstore Sales May Drop*

Washington Correspondent: BEN BRODINSKY

## **Will Vote on Interstate Schools for Negroes; Meharry to Be First**

WASHINGTON, D.C.—The educational compacts bill, providing for a regional higher education system in the South, will be brought to a vote on the floor of both Houses before the end of May.

Congressional majority leaders also predict that the legislation, requested by fifteen southern governors, will be enacted into law.

If that happens, Meharry Medical College will be immediately turned over to a southern regional educational board, already created by the Southern States. The Negro institution will thus become the first unit of a proposed dual chain of regional scientific and technical schools in the South for Negro and white students.

The southern governors have told Congressional judiciary committees in charge of the legislation that their states now have the funds to establish and support such schools.

In reporting the educational compacts bill, with the recommendation that it pass, the Senate judiciary committee wrote:

"The compact proposed by the southern governors discloses a harmony with the Constitution and no violation of existing federal law. The compact preserves the rights of each separate state while enabling each of these states to work together on any sound program which all of them accept. . . . The committee is impressed with the greater educational advantages and facilities for the citizens of the several states which would be accomplished under this compact. . . ."

Because opponents of the bill have argued that "it would tend to perpetuate segregation in the South," the sen-

ators proposed an amendment "that the consent of Congress to this compact shall not in any way be construed as an endorsement of segregation in education."

On the House side, the proposed bill will be subject to additional amendments under the terms of a rule that was issued by Majority Leader Halleck on April 29.

## **Student Council Has Final Word on Speakers**

NEW YORK CITY.—Members of the Columbia University student council will have the final decision in doubtful cases as to whether a speaker should appear before a student group, according to a recent announcement by the university.

The need for such a policy resulted from a student protest last December when the university banned the appearance of Howard Fast on the campus. Mr. Fast was under federal indictment at the time.

A special committee to study student organizations was formed under the direction of Joseph P. Chamberlain, professor of government, and is composed of seven faculty members and one student. When this committee is in doubt regarding a speaker, it was recommended that the final decision on the matter should be made by a committee to be appointed by the university student council.

The university accepted the committee's proposal that indictment be rejected as a formal criterion of speakers. The committee pointed out that "a person might be highly qualified to speak on a question having no relation to his indictment" and that "it might well happen that the indicted person might well be qualified to speak on the subject for which he was indicted."

## **Hopes Draft Will Bring Special Assignments for Science Students**

WASHINGTON, D.C.—A two-year selective service act will be law before Congress adjourns in June, predicts Representative Andrews of the House armed services committee. No person would be inducted under the act within ninety days after it is signed by the President.

The act would reestablish a nationwide system of local selective service boards with authority to muster young men between the ages of 19 and 25. College students would be deferred upon their own request only until the end of an academic year.

In hearings before the House committee, educators stressed that students in scientific and research fields should be assigned (without stigma of deferment) to training areas that are considered necessary for military and civilian security.

J. L. Morrill, president of the Land-Grant Colleges Association, pleaded that the government must not repeat the error of World War II, when indiscriminate drafting of scientific students resulted in a loss to science of 40,000 talented young men.

Dr. George Zook, American Council on Education spokesman, urged that the National Security Resources Board be held responsible for deciding the number of scientific personnel needed for national security and should work out details for assigning them to areas of greatest use.

Although the armed services committees may still write into the proposed act the provisions called for by educators, prints of the bill now under study on Capitol Hill do not provide for the assignment of scientific students to training duties.



## Long-Range Plan for Surplus Property Sought; W.A.A. to Die

WASHINGTON, D.C.—If a new surplus property act is passed in 1948 it will be concerned more with management details and very little with public benefits for education.

Spokesmen for the War Assets Administration explain that, because stocks of personal surplus property are low, their agency is ready to go out of business. The Truman administration, however, is concerned with setting up a long-range plan for disposing of ordinary peacetime items no longer needed by federal agencies. That is why proposals for a new surplus property act deal largely with property management, procurement, warehousing, transportation and related activities.

It is also proposed to abolish W.A.A. and lodge its functions in a bureau in the Federal Works Agency. Public benefit discounts and priorities to education would be abandoned on personal property but retained for real estate.

Congressional committees concerned with surplus property legislation are marking time on their assignments, since W.A.A. has authority to function until June 1949. The House expenditures committee has not set a date for hearings on a bill (H.R. 6276) introduced by Rep. Rizley of Oklahoma. Testimony on the Senate proposals (no bill has been prepared) was taken during April, but senators are far from agreed on a specific measure.

Meanwhile, the National Committee of State Educational Agencies for Surplus Property sent several representatives to Washington during the month to impress upon Congress that the benefits and discounts educational institutions now enjoy should be retained.

## Gov. Dewey Signs Antidiscrimination Bill

ALBANY, N.Y.—Racial and religious discrimination in the admission of students to colleges was made illegal in New York State when Gov. Thomas E. Dewey signed a bill vesting the state education department with power to eliminate such discrimination.

Commenting on the bill, Governor Dewey said: "Education, and particularly higher education, is a quest for the truth; baseless distinctions have no place

in that quest. Education controls the opportunity for professional careers; careers should depend only upon ability to serve. Education flourishes in the controversy of divergent groups, in conflicting ideas and ideals. Intellectual inbreeding has always proved disastrous."

The bill adds to already existing provisions on the subject of discrimination and prohibits any such discrimination in admission of students by any school of higher education because of religion, creed, color or national origin. It preserves religious freedom and the right of religious groups to establish and control schools in furtherance of their religion.

## Mature Students at Oklahoma Favor Admission of Negro

NORMAN, OKLA.—Results of a survey conducted by the University of Oklahoma's publication *Sooner Magazine* reveal that white students incline to favor admission of Negroes to the law school in proportion to the number of years they have attended the university.

The survey was made when the case of Ada Lois Sipuel Fisher was before the U.S. Supreme Court. Mrs. Fisher, Negro graduate of Langston University, had applied for admission to the University of Oklahoma Law School.

The percentage of freshmen favoring Mrs. Fisher's admission was 29.7; of sophomores, 40.8; of juniors, 49.5; of seniors, 54, and of graduate students, 63.5.

## Employment Service Offered Colleges

WASHINGTON, D.C.—A free employment service is offered by the Naval Officers' Placement Service to colleges and universities that need teaching and administrative staff employees.

Ralph W. Gentman, head of the service, says that his roster of available job seekers includes army and air force officers, retired from active duty. Many of these are qualified to teach engineering, mathematics and physical sciences. Others have experience for personnel and administrative duties.

No charge for the service will be made to the institution. The Naval Officers' Placement Service is at 1129 Vermont Avenue, N.W., Washington 5, D.C.

## Might Extend Social Security to Employees of Nonprofit Schools

WASHINGTON, D.C.—The Senate finance committee is giving serious thought to extending social security protection to employees of nonprofit educational institutions and state instrumentalities.

It was spurred to action by two recommendations of an advisory council on social security:

1. That professional and other workers in nonprofit institutions shall be brought under the federal old age and survivors' insurance system. "Not more than half the college teachers of the nation participate in retirement systems," said the council, "and in private colleges most such systems do not cover nonteaching personnel."

The council rejected the charge that a social security tax on nonprofit institutions would weaken their traditional tax exempt status. "We believe," the council said, "that public encouragement of educational enterprise would be better expressed by extending social security insurance to their employees than by continuing to deny it."

2. That state and local government employees shall be given the same protection through voluntary agreements between the state and the federal government. The voluntary plan was suggested because of "an apparent Constitutional barrier against federal taxation of states."

To make certain that as many public employees as possible are covered under the voluntary system, the council recommended that coverage be permitted only when elected for all employees within an occupational or departmental group.

## Simplified V.A. Forms Ready by July 1

WASHINGTON, D.C.—The Veterans Administration is now consolidating and revising a number of its forms, and these will be placed in use July 1. It is expected that a revised version of Form 7-1953, "Certificate of Eligibility and Entitlement," will replace a number of other forms.

Revised Form 7-1909, "Certification of Re-Entrance and/or Change of Training Status," will incorporate information from four other previously used blanks.

## Seek Permanent Ruling on Army and Air Force Detail

WASHINGTON, D.C.—The army and the air force want a new, broad law to give them permanent authority to detail their men as students in educational institutions.

At present the armed services are detailing personnel to schools under the emergency war powers. These will expire six months after official end of the war. In addition, military authorities told Congress that the old legislation does not make adequate provision for training members of the reserve.

The Senate armed services committee approved a bill last month to carry out the wishes of the armed services, with one exception. The military wanted no limitations on the number of men that can be detailed for campus study. The Senate committee, however, stipulated that the number of officers and warrant officers in the regular service who are in school at any time should be limited to 8 per cent of authorized strength; enlisted "regulars" in school should not exceed 2 per cent of authorized enlisted strength. The same percentages would apply to the reserve components.

Since the authorized strength of the army and air force is now under debate, the number of students who will be detailed to classrooms next year cannot be estimated. The army, however, believes that it will spend \$600,000 a year for this purpose; the air force, about \$665,000 a year.

## Ten-Year Program for Health Drawn Up

WASHINGTON, D.C.—Section chairmen of the National Health Assembly, which ended in Washington May 4, are now preparing summaries and recommendations which they hope will prompt school executives to "follow through" for the improvement of medical and health education.

Federal Security Agency officials say they "hope the summaries will be printed within the coming weeks and made available to the public."

The assembly was called by Federal Security Administrator Oscar Ewing to draw up a ten-year program for health, in which educational and community forces would take leading action.

Among sections of the assembly

whose proceedings will be of interest to college administrators are those that deal with the nation's need for: (1) medical personnel, led by Dr. Algo E. Henderson, assistant commissioner, New York State Department of Education; (2) health research, led by Dr. Andrew C. Ivy, vice president in charge of medical sciences, University of Illinois; (3) dental health, led by Dean Ernest G. Sloman, University of California Dental School; (4) environmental sanitation, led by Arthur D. Weston, director of sanitary engineering, Massachusetts Department of Public Health.

## Look for Decrease in Bookstores' Business

NEW YORK CITY.—A drop in the business volume of college stores was predicted at the recent annual meeting of the National Association of College Stores at the Hotel Pennsylvania.

Manufacturers interviewed at the convention believe that in view of the possibility of a decreased G.I. attendance in colleges this fall there will be a substantial reduction in college store volume. Competition among suppliers, however, is expected to begin because most of them are now able to get materials for the manufacture of commodities sold in college stores. Prices are expected to remain steady, though decreases are expected in such specialized materials as drafting sets.

John H. Jenkins, manager of the St. Louis University bookstore, was elected president of the association for the coming year. Herbert H. Hays of Berea, Ky., was named vice president.

## Opposes Federal Aid to Medical Colleges

BOSTON.—Opposition to the report of President Truman's Commission on Higher Education was expressed recently by Dr. Leonard Carmichael, president of Tufts College, who made a plea for New England educators to "maintain medical education in New England in its present independent form."

In addressing medical alumni members of Tufts College at the annual meeting of the alumni, Dr. Carmichael cautioned against the acceptance of federal support of medical education because acceptance would mean "the inevitable correlated federal direction of medical education."

## Favorable Hearings on Labor Extension Service Are Held

WASHINGTON, D.C.—Of more than 50 witnesses who testified last month on Capitol Hill on the proposed labor education extension service, only one person opposed the plan.

This unusual record of support for H.R. 6202 and 6249, however, does not assure that the Congress will approve at this session a labor extension education service. The accepted view is that the measures will be blocked by the House committee. The optimistic view is that because the Republican leadership wants to pass at this session of Congress a piece of welfare legislation which is "not too expensive," the labor education plan will be enacted.

The project would call for an expenditure of a modest \$10,000,000 the first year; \$20,000,000 the second year, and \$30,000,000 thereafter.

Labor leaders and educators presented a "united front" during the last month in support of the legislation's principles. They disagreed only on the method for administering the plan.

Educators told Chairman McCowen of the House education subcommittee that the labor extension project should be operated through a public institution of higher education or authority in each state. This would mean that usually the executive agency would be the land-grant college or the state university. Other institutions would take part in the program through written agreements.

Organized labor, on the other hand, insisted that the project should be run through a state labor extension board "not dominated by or subordinate to any professional group."

The single witness who opposed the plan altogether during the two weeks of testimony was Dr. H. M. Griffiths of the National Economic Council of New York. He said that the measure was "class legislation, unnecessary at this time."

## Negro Fund Drive Begins

NEW YORK CITY.—The fifth annual campaign of the United Negro College Fund, Incorporated was launched recently with a goal of \$1,400,000 to be raised to aid the thirty-two participating colleges. William E. Cotter is chairman of the national campaign organization.



## N.Y.U. Students Protest Tuition Increase

NEW YORK CITY.—An announcement by the administrative office of New York University that tuition rates will be increased 15 per cent has caused a storm of protest from students.

Political organizations on campus organized mass meetings to protest the tuition increase. However, the official undergraduate newspaper of the University Heights campus, though not approving the tuition increase, recognized its necessity and is accepting the decision of the administration.

Dr. Harry Woodburn Chase, chancellor of the university, assured veterans that the university will do all in its power to keep them in college. Aid will be granted them in the form of a liberal loan and scholarship policy in bona fide cases of need where withdrawal would otherwise be necessary. Effective in September, tuition will increase \$2 a point above the current \$13.50.

## P.C.W. Fees to Rise

PITTSBURGH.—Tuition charges at Pennsylvania College for Women have been raised to \$525, beginning in September, according to President Paul R. Anderson. Board and room charges also have been raised to \$775. A recent study indicated that general operating costs have increased 100 per cent in the last seven years. Likewise, salaries and wages have increased from 20 to 35 per cent.

## Iowa Raises Salaries, Residence Hall Fees

IOWA CITY, IOWA.—University of Iowa faculty and staff members will receive an increase in salary beginning July 1, President Virgil M. Hancher reports.

Personnel now paid less than \$3000 a year will get an additional \$10 a month; a 4 per cent increase is in line for those earning \$3000 and more. With a few exceptions, the increase will apply to all teaching, nonteaching and administrative personnel—approximately 3000 persons.

Exceptions include those whose primary purpose at the university is that of a student, those whose salary is set by contract, and some whose compensation comes from private sources. The college of medicine professional and

teaching staff will not be included because of the special salary schedule adopted last year.

At the same time, an increase in residence hall rates was announced. It will average 16 per cent in halls with boarding facilities and 20 per cent in nonboarding house units, according to Ted Rehder, director of the dormitory system.

## Harvard Boosts Tuition

CAMBRIDGE, MASS.—Announcement has been made by officials of Harvard University that an increase in tuition from \$400 to \$525 will be made in the college and graduate school in September. According to Paul H. Buck, provost, there has been no increase in tuition since 1929. Next fall for the first time since the war the student body will be smaller.

## Pomona's Fees to Increase

CLAREMONT, CALIF.—Dr. E. Wilson Lyon, president of Pomona College, recently announced that tuition rates will be increased from \$225 to \$250 a semester next September. Higher operating costs and preparation for eventual reduction in the enrollment make necessary the increase. Scholarship allowances will be increased accordingly.

## Centenary Scale Goes Up

SHREVEPORT, LA.—A general increase in faculty salaries and in tuition and other charges at Centenary College of Louisiana was announced recently by S. D. Morehead, business manager. Tuition and fees are being consolidated into a single charge of \$165 a semester, an increase of \$27 over last year. Room rent will rise from \$7.50 to \$10 a month, and board charges from \$1.25 to \$1.50 a day.

## Change Name to Westmar

LEMARS, IOWA.—The board of trustees of Western Union College has decided to change the name of the institution to Westmar College. This action will eliminate confusion that has existed between the college and a commercial telegraph company. When the college was founded in 1900 the name "Western Union" was chosen to carry out the idea of its establishment by joint action of five middle western conferences of the Evangelical United Brethren Church.

## Southerners Plan Institute for 1949

BIRMINGHAM, ALA.—Members of the Southern Association of College and University Business Officers at the annual meeting at Birmingham in April voted to develop an institute for training college and university business officers. Present plans call for the establishment of such an institute in 1949.

This was one of two resolutions that occasioned considerable discussion. The other called for steps to be taken by the southern association in the development of a national federation of existing regional college business officer groups. An earlier motion to form a National Association of College and University Business Officers was defeated, and the substitute motion in favor of a federation was adopted.

Association officers for 1948-49 include the following: president, W. T. Ingram, business manager, Alabama Polytechnic Institute; first vice president, C. B. Markham, treasurer, Duke University; second vice president, J. R. Anthony, comptroller, Georgia School of Technology; third vice president, Gladys Barger, treasurer, Lenoir Rhyne College; secretary-treasurer, Gerald D. Henderson, business manager, Vanderbilt University.

## N.Y. State University System Assured

ALBANY, N.Y.—Gov. Thomas E. Dewey recently signed educational bills that will establish a state university system and will provide for its expansion when the need exists.

The main bill relates to the establishment and operation of a state university and the appointment of a board of trustees to formulate plans and to administer programs for higher education in the state, including financial assistance for such purposes. The second bill authorizes the establishment of two-year community colleges and state aided four-year colleges. The state is to pay one-half of the capital cost of the community colleges and one-third of the operating costs.

Eventual capital construction cost of the state university has been estimated in excess of \$200,000,000. During the coming year the university board of trustees will confine activities largely to making plans for the new system. The legislature and governor must approve.



## Foley Would Amend Temporary Housing Bill

WASHINGTON, D.C.—The federal government is moving forward with plans to turn over free to educational institutions some 129,000 temporary housing units, including trailers, as was reported last month.

Under the terms of the McGregor Bill (H.R. 5719), the institution owning the land on which the units are located would receive them without strings attached. When the housing is located on land owned or leased by the government, the institution would have to assume the lease.

To these requirements, Housing and Home Finance Administrator Raymond Foley would add the following provisions:

1. Applications for the transfer of temporary housing to a school or college must be filed within 120 days after the McGregor Bill is enacted. Mr. Foley said that the time limit is necessary so that this agency can determine quickly which housing will be requested for transfer and which will be disposed of in other ways. "The government is eager to get out of the temporary housing business as soon as possible," he said.

2. If the property is to be sold by the educational institution within five years after the transfer, the federal government is to receive 80 per cent of the sale price.

Mr. Foley made his recommendations at the request of the House committee on public works which concluded hearings on the bill on April 29. Mr. Foley's twenty-three-page statement says that "under current provisions of the Lanham Act temporary war housing must be removed by July 25, 1949, unless transferred to communities or educational bodies."

## Aid to Employees' Children

ROCHESTER, N.Y.—The University of Rochester will make available special tuition awards amounting, in general, to half the tuition fee per semester for the sons and daughters of all full-time employees of the university, President Alan Valentine announces. Recipients must meet academic and general standards. Children of full-time employees with not less than five years of consecutive service and of all full-time faculty members are eligible.

## GIFTS AND CAMPAIGNS

- BARNARD COLLEGE, New York, reports that \$10,914 has been received from 945 alumnae since July 1 as a result of the annual appeal.

- BOWDOIN COLLEGE, Brunswick, Me., has obtained more than \$500,000 during early stages of the Sesquicentennial Fund campaign; a two-year goal is \$3,025,000. The money is for urgent building needs and additional endowment for faculty salaries.

- CITY COLLEGE OF NEW YORK officials report that \$1,000,000 has been contributed toward the \$3,000,000 campaign of the City College Centennial Fund. Proceeds will be used to erect a student war memorial building.

- RENSSELAER POLYTECHNIC INSTITUTE, Troy, N.Y., through President Livingston W. Houston, has announced plans for a fund raising program with a goal of \$27,775,000. It will be linked to Rensselaer's 125th anniversary to be celebrated in 1949. Some \$16,230,000 is needed for additional endowment for research, scholarships, fellowships, laboratory equipment, and faculty salaries, and about \$11,525,000 for buildings.

- PRINCETON UNIVERSITY recently received two grants totaling \$71,450 from the New Jersey division of the American Cancer Society. They will aid research on cells and cell growth under the direction of the department of biology.

- ROOSEVELT COLLEGE, Chicago, announces a long-range fund raising program totaling \$3,000,000 for an expansion program. Additional funds are required for an expanded student scholarship program, new facilities, and completion of remodeling projects in the old Auditorium Building.

- NEW YORK UNIVERSITY has received a \$6000 scholarship grant for the education of needy students in the School of Commerce from Cedric A. Major, president of the Lehigh Valley Railroad.

- HARVARD UNIVERSITY officials recently received a gift of \$50,000 to establish a memorial fund in Slavic languages and literature in honor of the late Prof. H. Cross.

- YALE UNIVERSITY gets the bulk of the estate of Joseph Horne, president of

Horne's Department Store in Pittsburgh, to be used for scholarships for students from Pittsburgh and for retired or disabled professors or for endowment or maintenance of such professorships.

- LONG ISLAND AGRICULTURAL AND TECHNICAL INSTITUTE, Farmingdale, N.Y., will use as a practical training ground for upperclassmen the 410-acre estate of William Robertson Coe recently given by its owner to the State Department of Education.

- GROVE CITY COLLEGE, Grove City, Pa., announces a gift of \$1,500,000 from the Pew family of Philadelphia, contingent upon a like sum being raised by the college. J. Howard Pew, president of the board of trustees, participated in the gift along with Joseph Newton Pew, Ethel Pew and Mrs. Alarik Myrin. The ultimate fund of \$3,000,000 will build a gymnasium and recreation center with an alumni annex, a library, residence halls for men and women, and an engineering building, as funds become available.

- MARTIN COLLEGE, Pulaski, Tenn., has received an \$11,000 bequest from the late Mortimer Davenport, a longtime resident of Pulaski.

## NAMES IN THE NEWS



William L. Woolf, formerly in charge of naval research at Stevens Institute in Hoboken, N.J., has been named director of physical plant and operations at the

University of Utah. In this new position he will supervise the work of the buildings and grounds department and other campus auxiliaries, such as the women's residence hall, bookstore, purchasing department, union building, and the veterans' housing project.

James R. Simpson, assistant to the treasurer of Cornell University, has been appointed secretary of the investment committee of the university. He will become executive officer of the trustee committee which administers the university's endowment portfolio. Another appointment recently announced is that of Neal R. Stamp, assistant to the counsel, as assistant secretary of the corporation.

*Dr. Thomas Hale Hamilton*, assistant dean of University College, University of Chicago, has been appointed vice president of Pennsylvania College for Women, effective August 1, *Dr. Paul R. Anderson*, president of P.C.W., announces.



*Harold D. Fasnach*, recently business manager and dean of administration at Colorado Woman's College, Denver, has been chosen president

of LaVerne College, LaVerne, Calif. His appointment becomes effective July 1. At present he is vice president of the National Council of Men's Work of the Church of the Brethren.

*Elton D. Phillips*, controller of the University of Southern California, has been named business manager, according to an announcement by *Robert D. Fisher*, financial vice president of the university. . . . *Paul A. Walgren*, business manager of Oregon State College, Corvallis, will succeed Mr. Phillips. Mr. Walgren has been an administrator of the Oregon System of Higher Education for seventeen years.

*Dr. Raphael O'Hara Lanier*, U.S. minister to Liberia, has been appointed president of Texas State University for Negroes. Dr. Lanier has submitted his resignation to the State Department and will take office in June. The university began its first term last September, and Dr. Lanier will be its first permanent president.

*Maybelle Coleman*, dean of students at Lander College, Greenwood, S.C., has been appointed acting president to succeed the *Rev. J. Marvin Rast*, who resigned to return to the ministry.

*Judson Clements Ward Jr.*, president of Georgia Teachers College at Collegeboro, has been named assistant chancellor of the University System of Georgia. *Dr. Zach Suddath Henderson* is the new president of Georgia Teachers College.

*Dr. Eugene B. Elliott*, state superintendent of public instruction of Michigan, is to be president of Michigan State Normal College at Ypsilanti, effective July 1. He succeeds *Dr. John M. Munson*, who is retiring after sixteen years as president.

*The Rev. Irving M. Prince*, pastor of the First Baptist Church of Paragould, Ark., on May 1 became president of Central College at Conway, Ark.

*Dr. William Gear Spencer*, president of Franklin College of Indiana, submitted his resignation recently and has been appointed president emeritus. *Dr. Robert H. Kent*, academic dean, will continue to serve as acting president, which he has done since December 1946 when Dr. Spencer was injured in an automobile accident.

*The Rev. William G. Ryan*, former faculty member of St. Joseph's College for Women in Brooklyn, N.Y., has been named president of Seton Hill College, Greensburg, Pa. He will take office in the fall and succeeds the late *Rev. Dr. James A. Reeves*.

*William Speer*, director of admissions at Rutgers University, has been named to the new position of director of student life. *George A. Kramer*, assistant director of admissions, has succeeded Mr. Speer as director.



*John E. Brown Jr.*, son of the founder of John Brown University at Siloam Springs, Ark., succeeds his father as president of the university. *Dr. John E. Brown*

Sr. will continue as chairman of the board of directors. The new president, 26 years old, is said to be the youngest university president in the nation.

*Alex D. Bailey*, vice president of the board of trustees of the Illinois Institute of Technology, has been appointed chairman of the heating plant and services division of the institute's \$15,000,000 development program.

*Dr. Thomas S. Gates*, president of the University of Pennsylvania from 1930 to 1944, died at his summer home in Osterville, Mass., at 75 years of age.

*Dr. Albert Fred Woods*, 81, former president of the University of Maryland, died recently after an illness of five months. He was president from 1920 to 1926.

*William R. O'Neill*, controller of Rensselaer Polytechnic Institute, died recently as the result of a heart attack. He was 44 years old.

*Dr. James Frances Rockett*, president of St. Joseph's College for Women in Portland, Me., died recently at the age of 63. He was appointed president in 1947.

## DIRECTORY OF ASSOCIATIONS

### Associations of College and University Business Officers

#### Central Association

President: T. E. Blackwell, Washington University; secretary-treasurer: L. R. Lund, University of Minnesota.

#### Eastern Association

President: Henry W. Herzog, George Washington University; secretary-treasurer: Boardman Bump, Mount Holyoke College.

#### Southern Association

President: George R. Kavanaugh, Berea College; secretary-treasurer: Gerald D. Henderson, Vanderbilt University.

#### Western Association

President: William Norton, University of California; secretary-treasurer: William Brand, Stanford University.

#### Schools for Negroes

President: V. D. Johnston, Howard University; secretary: L. H. Foster Jr., Tuskegee Institute.

#### Educational Buyers Association

President: Gerald D. Henderson, Vanderbilt University; executive secretary: Bert C. Ahrens, 45 Astor Place, New York, N. Y.

### Association of Superintendents of Buildings and Grounds of Universities and Colleges

President: Paul H. Elleman, Ohio State University; secretary-treasurer: A. F. Galistel, University of Wisconsin.

#### Association of College Unions

President: Douglas O. Woodruff, University of Utah; secretary-treasurer: Edgar A. Whiting, Cornell University; editor: Porter Butts, University of Wisconsin.

### American College Public Relations Association

President: Horace Renegar, Tulane University; secretary-treasurer: Max E. Hannum, Franklin and Marshall College.

Convention: June 23-27, Denver, E. D. Whittlesey, University of Denver, convention secretary.

### National Association of College Stores

President: A. W. Littlefield, Barnes and Noble, Inc., New York, N. Y.; executive secretary: Russell Reynolds, 189 West Madison Street, Chicago.



# PRODUCT INFORMATION

Information on the materials, equipment and supplies with which an institution is built, operated and maintained and which are used in its various departments is of vital interest to those charged with the business operation. College and University Business recognizes the importance of this information and believes it has rendered a real service by grouping manufacturers' announcements and new product descriptions into a separate part of the magazine. We believe this is an infinitely better plan than to mix such information through the editorial pages where it becomes obscure and confusing.

You will find manufacturers' advertisements from pages 33-64. Pages 60-63 contain descriptions of new products and items of interest. Further details on any product advertised or described may be obtained without obligation and with a minimum of effort by use of the postcard below.

## Index to "What's New"


Pages 60-63

### Key

- 1 Simmons Company  
Dormitory Space Saver
- 2 Fremont Rubber Co.  
Fremont Rubber Tile
- 3 Central Commercial Co.  
Lowrey Electronic Organ
- 4 American Structural Products Co.  
Kaylo Insulation
- 5 D. W. Onan & Sons Inc.  
Ground Maintenance Electric Plant
- 6 Maas-Rowe Electromusic Corp.  
Organ Percussion
- 7 Dow Corning Corporation  
DC Pan Glaze
- 8 California Juice-Master Co.  
Citrus and Vegetable Juicers
- 9 Anemostat Corp. of America  
Air Diffuser
- 10 The Prosperity Company, Inc.  
Electrical Brake for Prosperity Extractors
- 11 The American Laundry Machinery Co.  
High-Speed Laundry Drying Tumbler
- 12 Otis Elevator Co.  
Elevator Car Finishes

### Key

- 13 American Dispenser Company, Inc.  
Lathurshelf Soap Dispenser
- 14 REX-O-Graph, Inc.  
Motor Driven Fluid Duplicator
- 15 Detroit Steel Products Co.  
Inside Metal Storm Sash
- 16 Hill-Rom Co., Inc.  
Public Room Furniture
- 17 Rudolf Schick Publishing Co.  
Anatomical Charts
- 18 C-Thru Ruler Co.  
All-Plastic T-Square
- 19 Warsaw Elevator Co.  
Fluid-Drive Elevator
- 20 The Fuller Brush Co.  
Launderable Sweeping Mop
- 21 Bell & Howell, Microfilm Div.  
Leaflet, "New Microfilming Service"
- 22 H. J. Heinz Co.  
Recipe Service
- 23 Best Universal Lock Co., Inc.  
"Preview, Best Universal Locks"

USE THIS  
CARD 

*This card is detachable and is provided for your convenience in obtaining information on all items advertised in this issue. See reverse side.*

### BUSINESS REPLY CARD

No Postage Stamp Necessary if mailed in the United States

2 CENTS POSTAGE WILL BE PAID BY

COLLEGE AND UNIVERSITY BUSINESS

919 NORTH MICHIGAN AVENUE

CHICAGO 11, ILLINOIS

FIRST CLASS  
PERMIT NO. 136  
SEC. 510 P. L. & R.  
CHICAGO, ILL.



# Index to "What's New"

Continued

Key	
24	Eastman Kodak Co. "Audio-Visual Education" References
25	Warren Webster & Co. Catalog
26	W. B. Connor Engineering Corp. Bulletin K-20
27	Beckley-Cardy Co. School Buyers Guide No. 84
28	The National Terrazzo & Mosaic Association, Inc. "Terrazzo" Folder 13b/5
29	Facing Tile Institute Catalog 48C
30	Ralph C. Coxhead Corp. Vari-Typer Booklet
31	The Cleveland Range Co. Steam-Chef Catalog
32	National Gypsum Co. "Gold Bond Sound Control Products"
33	Corning Glass Works Catalog No. LP28
34	Franklin-Lee Company 1948 Catalog
35	Wade Mfg. Co. "Water Hammer—Its Cause and Cure"
36	Allied Radio Corp. 1948 Catalog
37	Madison Products Co. Fabrit Leaflet
38	Julius Hyman & Co. "The Residual Insect Toxicant, Chlordane"
39	John Sexton & Co. Pinesbridge Farm Smoked Turkey Distributor

# Index to Products Advertised

Key	Page	Key	Page
40	American Mat Corporation Rubber Link Matting..... 58	61	Hillyard Sales Companies Floor Maintenance..... 50
41	Ampro Corporation Movie Projector..... 41	62	Holt Manufacturing Co. Vacuum Cleaner..... 40
42	Baker Linen Company, H. W. Linen & Towel Supplies..... 51	63	Hotpoint, Inc. Kitchen Equipment..... 47
43	Bausch and Lomb Optical Company Microscopes..... 49	64	Huntington Laboratories, Inc. Floor Maintenance..... 42
44	Bell & Howell Company Movie Projector..... 33	65	Johns-Manville Unit Construction .....following page 32
45	Blank & Co., Inc., Frederic Wall Covering..... 64	66	Kellogg Company Institutional Food..... 35
46	Carrom Industries, Inc. Institutional Furniture..... 45	67	Legge Co., Inc., Walter C. Floor Maintenance..... 55
47	Celotex Corporation Acoustical Materials..... 39	68	McArthur & Sons, Geo. School Towels..... 40
48	Clarín Mfg. Co. Folding Chairs..... 58	69	Medart Products, Inc., Fred Gymnasium Equipment..... 36
49	Clark Linen & Equipment Co. Institutional Furnishings..... 59	70	Minneapolis-Honeywell Regulator Co. Temperature Controls..... 53
50	Columbia University Press Book..... 46	71	Moore, Inc., P. O. Key Control..... 58
51	Crane Company Plumbing Equipment .....following page 32	72	Morse Boulger Destructor Co. Incinerators..... 38
52	Deagan, Inc., J. C. Chimes..... 46	73	National Chemical & Mfg. Co. Paint..... 56
53	DeVry Corporation Movie Projector..... 46	74	National Lock Company Locks..... 36
54	Dudley Lock Corporation Locks..... 56	75	Newman Brothers, Inc. Memorial Tablets..... 48
55	Finnell System, Inc. Floor Maintenance..... 3rd Cover	76	Peterson & Company, Leonard Laboratory Furniture..... 46
56	Frigidaire Division Refrigerator Equipment..... 34	77	Powers Regulator Co. Shower Mixers..... 40
57	General Chemical Company Laboratory Chemicals..... 57	78	Roseman Tractor Mower Company Tractor Mower..... 48
58	Glidden Company Paint..... 37	79	Schulmerich Electronics, Inc. Carillon Bells..... 44
59	GoldE Manufacturing Company Projection Machine..... 42	80	Sexauer Mfg. Co., J. A. Plumbing Repair Equipment..... 48
60	Harold Supply Corporation Institutional Furniture..... 48	81	Sexton & Company, John Institutional Food..... 4th Cover
		82	Simmons Company Institutional Furniture .....following page 48
		83	Sloan Valve Company Flush Valves..... facing page 33
		84	Spiral Binding Co., Inc. Book Binding..... 43
		85	Universal Bleacher Co. Portable Bleacher..... 54
		86	Vestal, Inc. Floor Maintenance..... 52
		87	Wayne Iron Works Portable Bleacher..... 52
		88	Weis Manufacturing Co., Inc., Henry Cabinet Showers..... 44
		89	West Disinfecting Company Insect Control..... 38
		90	Weston Electrical Instrument Corp. Electrical Instruments..... 56
		91	Wilcox Mfg. Co., W. W. Room Information Racks..... 40

May, 1948

Please ask the manufacturers, indicated by the numbers I have circled, to send further literature and information provided there is no charge or obligation.

## WHAT'S NEW

1	9	17	25	33
2	10	18	26	34
3	11	19	27	35
4	12	20	28	36
5	13	21	29	37
6	14	22	30	38
7	15	23	31	39
8	16	24	32	

## ADVERTISEMENTS

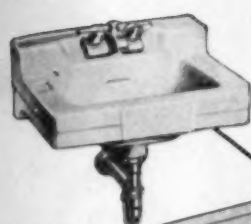
40	48	56	64	72	80	88
41	49	57	65	73	81	89
42	50	58	66	74	82	90
43	51	59	67	75	83	91
44	52	60	68	76	84	
45	53	61	69	77	85	
46	54	62	70	78	86	
47	55	63	71	79	87	

☐ Six month Volume Index, July-December 1947

NAME \_\_\_\_\_ TITLE \_\_\_\_\_

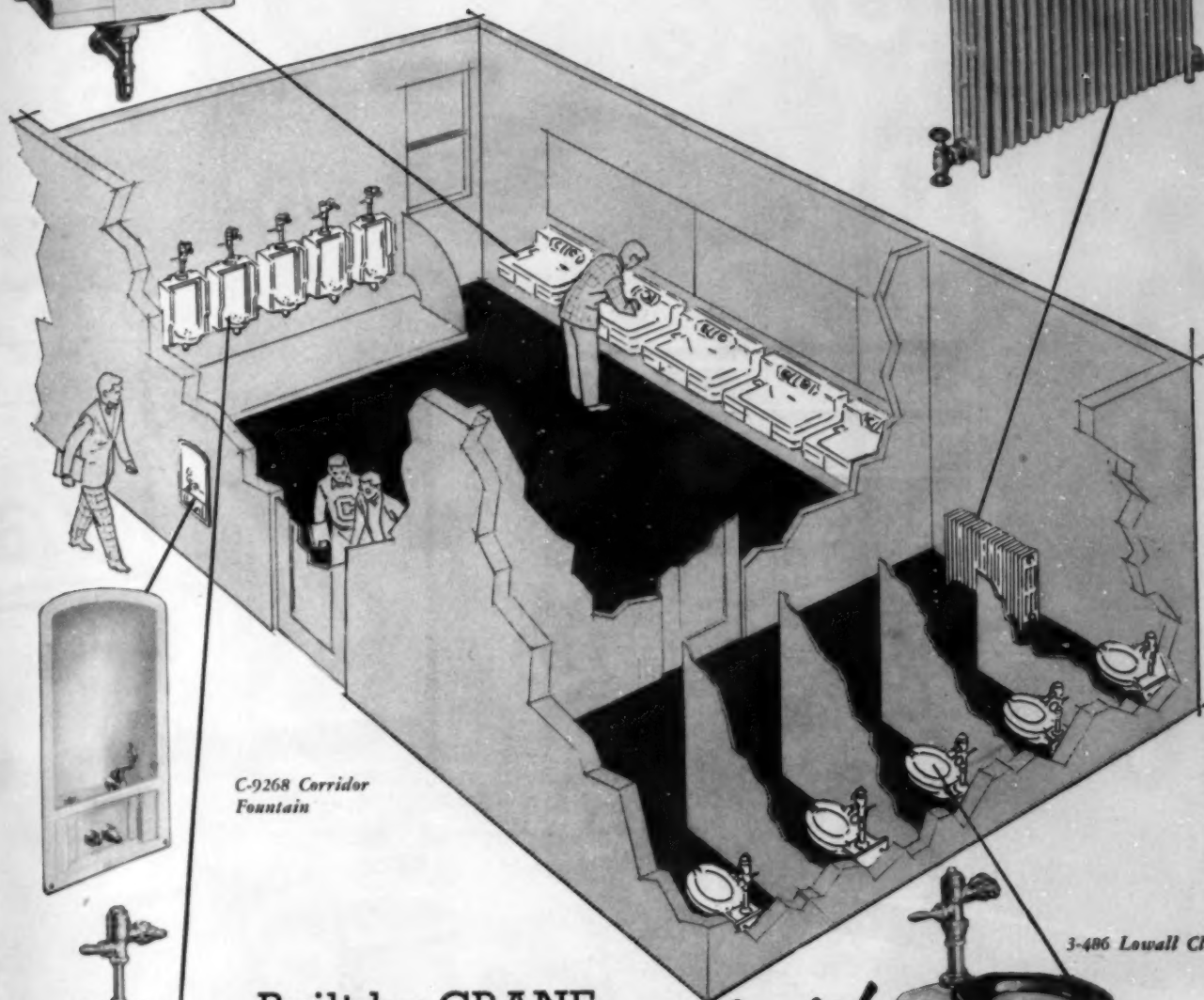
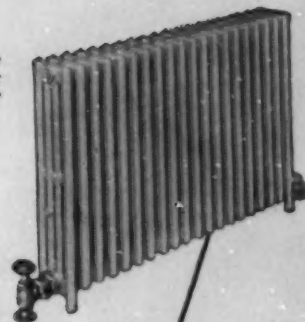
INSTITUTION \_\_\_\_\_

ADDRESS \_\_\_\_\_ CITY \_\_\_\_\_ ZONE \_\_\_\_\_ STATE \_\_\_\_\_

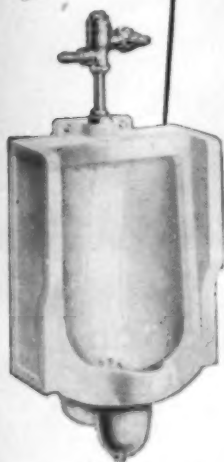


1-133  
Oxford  
Lavatory

Crane  
Compac  
Radiator



C-9268 Corridor  
Fountain



7-87 Correcto Urinal

Built by CRANE...  
built to *Last!*



3-486 Lowall Closet

That's the thing about Crane school plumbing fixtures. They're built to *last* . . . built to withstand years of tough school usage. And see these other Crane advantages—

\***EXTRA HEALTH SAFEGUARDS** . . . on all Crane fountains, showers, urinals, and closets . . . they protect the students in your care.

\***CONVENIENCE** . . . simple controls like Crane *Dial-ese* faucets, as easy to turn as the dial on your radio.

\***LOW MAINTENANCE** . . . Crane fixtures cost less to keep up. To renew a *Dial-ese* faucet, for example, you just slip out one cartridge and slip in another —one cartridge unit fits *all* Crane *Dial-ese* faucets.

See your Crane branch, wholesaler, or plumbing contractor for full information on the Crane school line when you plan a new plumbing installation or modernize your present facilities.

# CRANE

CRANE CO., GENERAL OFFICES:  
836 S. MICHIGAN AVE., CHICAGO 5  
PLUMBING AND HEATING  
VALVES • FITTINGS • PIPE

NATION-WIDE SERVICE THROUGH BRANCHES, WHOLESALERS, PLUMBING AND HEATING CONTRACTORS

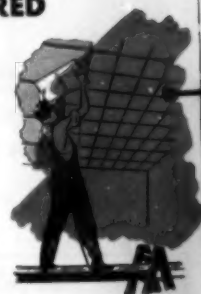


**ONCE YOU HAVE THESE JOHNS-MANVILLE WALLS—CEILINGS—FLOORS,  
YOU CAN KEEP CHANGING THE WHOLE BUILDING INTERIOR AS REQUIRED**

**MOVABLE WALLS**—The keystone of flexibility in Unit Construction is the J-M Transite Wall. Can be disassembled and relocated as needs require. One-unit rooms, for instance, can be speedily converted into two-unit rooms, or vice versa. Made of fireproof asbestos and cement, practically indestructible materials, the movable panels form rigid, double-faced partitions, 4" thick. Can also be used as interior finish of the outside walls. Removable Transite panels permit ready access to wiring, etc.



**ACOUSTICAL CEILINGS**—Important factor in helping to overcome the handicap of distracting noise, Johns-Manville Acoustical Ceilings are beneficial both to teacher and student alike. They give the desired degree of quiet for effective teaching, and are proved aids to concentration. An exclusive Johns-Manville patented construction system permits interchangeability of flush-type fluorescent lighting and acoustical units, which are readily demountable.



**COLORFUL, RESILIENT FLOORS**—J-M Asphalt Tile Flooring completes the Unit Construction System. Made of asbestos and asphalt, the units withstand hard wear, yet are comfortable and quiet underfoot. Individual units permit easy alterations or extension of patterns. Made in a wide variety of plain and marbled colors.



# "Structurally flexible"

**Yes! This attractive university lecture room can be enlarged, subdivided, or even relocated!**

**Johns-Manville Unit Construction provides the complete interior for schools and colleges... offers many new advantages**

**H**ERE IS CONSTRUCTION that sets new standards of architectural beauty and at the same time meets the long-existing need of schools and colleges for *complete structural flexibility*.

Whenever educational needs present new requirements, you can expand, convert, or subdivide interiors built with Johns-Manville Walls, Ceilings, and Floors.

You can vary the size or arrangement of rooms and corridors... make endless revisions of space-use... and do it economically, quickly, without waste of material!

Also, this proved method of construction makes the whole interior—walls, ceilings, floors—available under *one* specification, *one* manufacturer's responsibility. Each material contributes individual advantages:

1. **Movable Walls**... readily assembled... are interchangeable... 100% salvageable. Made of sound-resistant, asbestos-cement Transite panels... hard to mar, easily cleaned by a simple washing—advantages that make a big difference in the maintenance budget.
2. **Acoustical Ceilings**... attractive... demountable... reduce distracting noise. Units can be taken down and relocated as desired.
3. **Colorful, Resilient Floors**... quiet underfoot. Small units permit easy extension of floor pattern.

All these constituent parts are durably built to last as an *integral* part of the building. Write for further information and details on this significant development in the construction of educational buildings. Address Johns-Manville, Department AF-6, P. O. Box 290, New York 16, N. Y.



A lecture room now, it may be a laboratory tomorrow—expanded or rearranged to meet a new need! That's the structural flexibility made possible by the Johns-Manville Unit Construction System.



## Johns-Manville Unit Construction

ASPHALT TILE FLOORS • MOVABLE TRANSITE WALLS • ACOUSTICAL CEILINGS



# These 7 FACTS

tell you why there are  
more **SLOAN *Flush* VALVES** sold than  
all other makes combined ...

**REPUTATION**—Sloan is the world's largest manufacturer of Flush Valves exclusively.

**ENDURANCE**—Thousands of the first Sloan Flush Valves installed are still in perfect operation after 37 years of daily use.

**LOW MAINTENANCE**—Unequalled records show maintenance costs as low as  $\frac{1}{4}$  of 1c per valve per year.

**WATER CONSERVATION**—Records prove that reduced water consumption has saved

enough to pay for Sloan installations many times over.

**SAFETY FROM POLLUTION**—Sloan Vacuum Breakers absolutely prevent back syphonage—thereby protect public health.

**QUIETNESS**—Without screening the water, Sloan Quiet Flush Valves are whisper quiet.

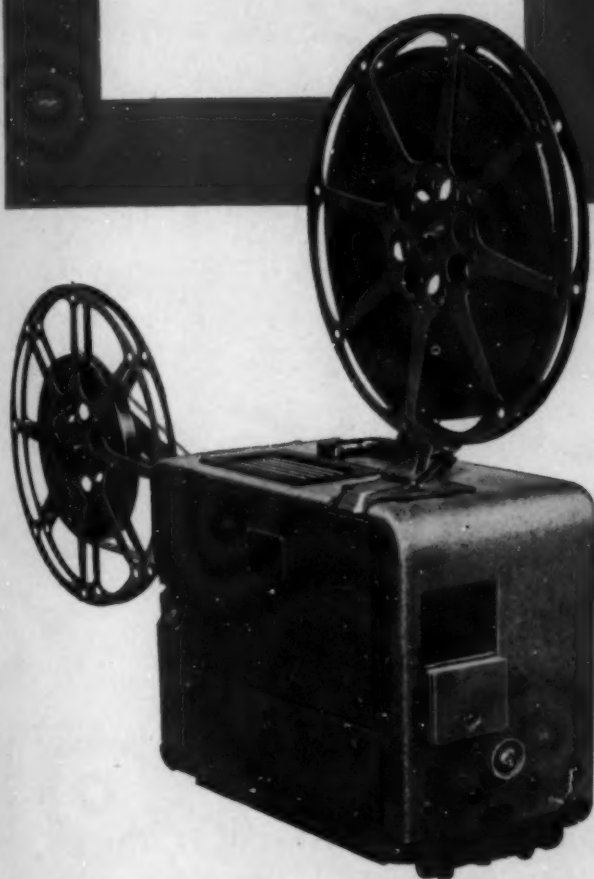
**PRICE**—The plus values of Sloan's unequalled records of performance in the field are yours at costs no higher than others.

**USERS GET MORE \$ VALUE FROM**

**sloan *Flush* valves**  
4300 W. LAKE STREET CHICAGO • ILLINOIS



**HOW MUCH  
SHOULD YOU  
PAY FOR A  
SOUND FILM  
PROJECTOR?**



**Bell & Howell**

Since 1907 the largest manufacturer of Professional Motion Picture  
Equipment for Hollywood and the World

**A**mong 16mm sound film projectors there are wide differences in prices.

But experienced visual educators know that they can't simply accept the lowest bid, and call the difference a saving resulting from smart buying.

For in these competitive days particularly, you get what you pay for. And if you don't pay enough to get *quality* projectors, you may need a fund to cover the risks you run.

Add that fund to the low-bid price, and the chances are you'll have enough to buy the finest projectors in the first place. Then you'll be assured of getting always-dependable, theater-quality reproduction of pictures and sound, essential to the success of your audio-visual program.

*Filmosound*

**The 16mm Sound Film Projector  
with a Hollywood Heritage**

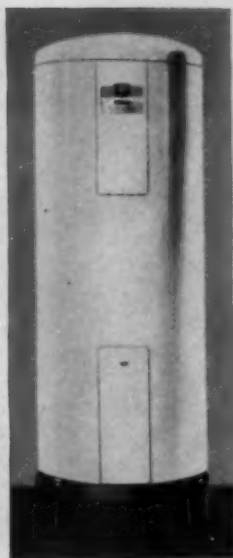
Forty-one years of supplying Hollywood's preferred movie studio equipment have proved to Bell & Howell that truly fine motion pictures cannot be produced by projectors that ignore or sidestep the highest standards of design and manufacture. So Filmosound projectors are built up to professional standards, not down to low-bid prices.

It's natural, then, that Filmosound projectors cost more to make. But the *value* is there, or Filmosounds wouldn't be overwhelmingly preferred in schools.

*Bell & Howell Company, 7192 McCormick Road, Chicago 45. Branches in New York, Hollywood, Washington, D. C., and London.*

# SCHOOLS CAN SAVE ALMOST ONE-HALF

## On Appliances for Home Economics Departments



**AND, UNDER FRIGIDAIRE SCHOOL PLAN,  
ALL EQUIPMENT PURCHASED WILL BE KEPT UP-TO-DATE  
FOR 5-YEAR PERIOD AT NO ADDITIONAL COST**

To accredited schools, Frigidaire offers an economical plan for equipping Home Economics Departments with latest-make appliances, and keeping such equipment up-to-date.

These schools may purchase through local Frigidaire dealers at special "school prices" (approximately  $\frac{1}{2}$  regular retail price) any of the following:

**Frigidaire Refrigerators**, including famous "Cold-Wall" models.

**Frigidaire Electric Ranges**, in any of six different models.

**Frigidaire Electric Water Heaters**, 30- to 80-gal. capacities; round or table top models.

**Frigidaire Home Freezers**, 8 cu. ft. model.

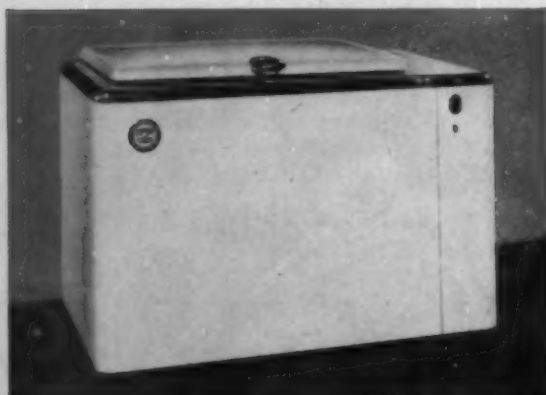
Following purchase, school is entitled to a unique "replacement" plan, on these terms: For 5 years thereafter, as new models of the appliances which have been purchased are introduced, Frigidaire dealer will replace the older models with new models of comparable size and quality—at no additional cost to the school.

**Regular Warranties Apply.** All appliances sold under the Frigidaire School Plan carry the full Frigidaire one-year warranty. Sealed-in mechanism of refrigerators and home freezers are fully protected against service expense for a period of five years from date of purchase.

**See Your Frigidaire Dealer.** Ask your local Frigidaire Appliance Dealer to give you full details of the Frigidaire School Plan today. Find his name in Classified Phone Directory. Or write: Frigidaire Division, General Motors Corp., 1246 Amelia St., Dayton 1, Ohio. (In Canada, 626 Commercial Rd., Leaside 12, Ontario.)

**YOU'RE TWICE AS SURE WITH TWO GREAT NAMES**

**FRIGIDAIRE**  
MADE ONLY BY  
**General Motors**

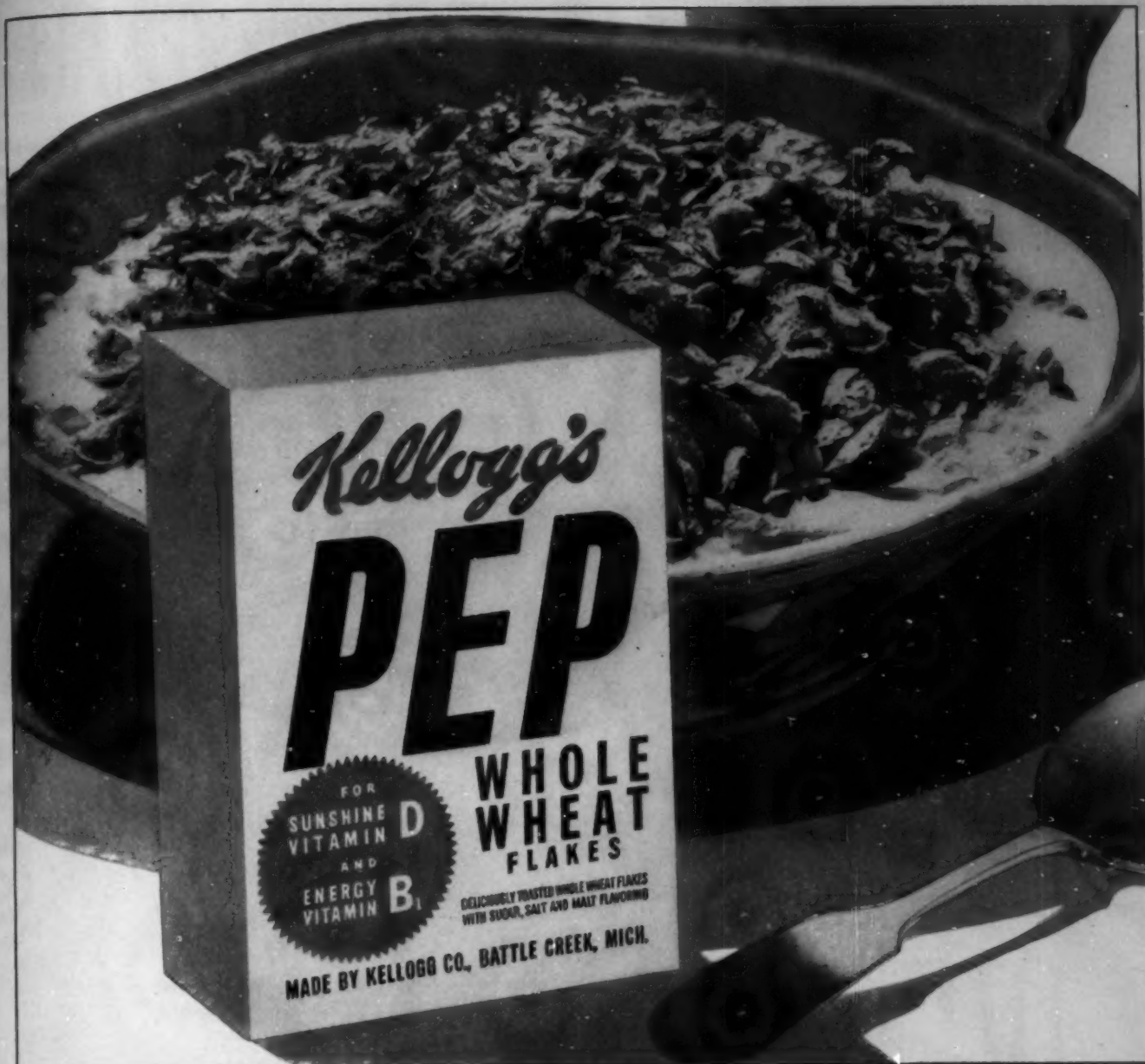


**ALL TYPES OF REFRIGERATION  
AND AIR CONDITIONING EQUIPMENT**



Frigidaire manufactures an outstanding line of refrigeration equipment — Reach-In Refrigerators, Ice Cream Cabinets, Beverage Coolers, Water Coolers, for cafeterias or lunch room. Also all types of Air Conditioning or cooling equipment for assembly halls, classrooms, laboratories or offices. (These types of equipment are *not* available under "School Plan.") See your Frigidaire Commercial Dealer.





## That "Straight-From-Home" Taste....

**R**EMEMBER that friendly, familiar flavor of Kellogg's Pep?

Your students do, too—they know Kellogg's cereals as well as they do the kid who lived next door back home.

That's why Kellogg's cereals are so welcome to undergraduates. They're used to them. They like 'em. They want them. As

a matter of fact, Kellogg's cereals are far more popular than any other brand.

Order the individual size and see how the students go for a package of their own.

P.S. to Dietitians: a single bowlful of Pep contains the day's need of vitamin D—plus twice as much thiamine (vitamin B<sub>1</sub>) as the good whole wheat from which it's made.

KELLOGG'S CORN FLAKES • RICE KRISPIES • PEP • KELLOGG'S 40% BRAN FLAKES • KRUMBLES  
KELLOGG'S SHREDDED WHEAT • KELLOGG'S RAISIN BRAN FLAKES • CORN-SOYA • RICE FLAKES • ALL-BRAN

MORE STUDENTS LIKE *Kellogg's* BEST

THE GREATEST NAME IN CEREALS

Battle Creek and Omaha

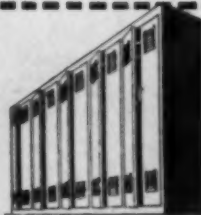
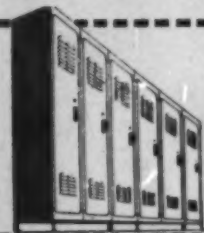
# MEDART *Leadership*

## IN SERVING THE NATION'S SCHOOLS

75 years in serving the nation's schools has given Medart unquestioned leadership in the field of gym and locker room equipment and physical educational apparatus. During these years Medart has pioneered the development of new ideas and improvement which has earned for Medart products the slogan "the standard of comparison." Medart leadership and experience are your assurance of sound investment when you buy equipment made by ... Medart of St. Louis.

## MEDART MAKES . . .

Steel Lockers • Steel Lockerobes • Gymnasium Apparatus • Telescopic Gym Seats • Basketball Backstops • Basketball Scoreboards • and the new Acromat-Trampolin



WRITE  
FOR  
LITERATURE

FRED MEDART PRODUCTS, INC.

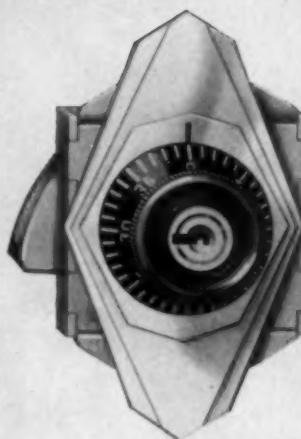
3535 DEKALB STREET  
ST. LOUIS 18, MISSOURI

when you buy **LOCKERS**



carefully examine the

**LOCKS**



No. 68-267

**ASK FOR**

*built-in  
combination  
self-locking  
locks by*

**NATIONAL  
LOCK**

Many of America's leading steel locker manufacturers use NATIONAL LOCKS as standard equipment. The reason is obvious. For over 45 years NATIONAL LOCKS have proven their high quality and superiority wherever security is important.

The lock shown above is typical of our built-in type locks. Designed for use on lockers having a spring latch bar, it is durably built and provided in bright chromium with black baked enamel dial, having white figures and gradations. This master-keyed lock will provide years of troublefree service. It can also be applied to lockers now in use.

Also available from National Lock are built-in locks for laboratory and vocational equipment. Made of heavy, solid brass, they are ideal for school and industrial use. Write us about your lock requirements. Don't forget. we are the manufacturers of the well-known NATIONAL LOCK masterkeyed and combination type shackle locks.



National  
Lock  
Company

ROCKFORD  
ILLINOIS  
LOCK  
DIVISION



*America's First  
and Finest*

# COLOR SERVICE FOR PAINTING PERFECTION

*...at no extra cost*



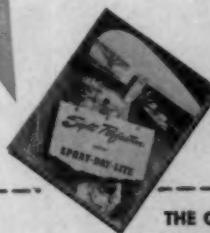
**Glidden**  
*Sight Perfection*  
**COLOR SERVICE**  
IMPROVES VISIBILITY  
PROMOTES SAFETY  
BUILDS MORALE

**SPRAY-DAY-LITE**

AND BRUSH-DAY-LITE  
MAXIMUM LIGHT REFLECTION  
1 COAT DOES JOB OF 2  
WASHES LIKE TILE  
LASTS LONGER

*It's complete! It's tailor-made!  
It's free from Glidden!*

Painting costs just as much the conventional way, so why not try the profitable scientific way, employing white and colors functionally, according to a complete set of illustrated prescriptions tailor-made for your school by Glidden experts? This Glidden Color Service, now offered you without charge, is America's first and finest with a record of successful results covering 18 years. It can help you provide teachers and students with a pleasant home away from home by improving seeing conditions, promoting safety, building morale. And when your prescriptions are carried out in Glidden SPRAY-DAY-LITE, you can depend on America's largest-selling interior maintenance paint for the smartest-looking, longest-lasting one-coat finish attainable. Coupon below will bring you more facts on this winning Glidden combination for profitable painting. Mail it today!



**Glidden**  
*Pacemaker in Paints*

THE GLIDDEN COMPANY, Dept. FF-5  
11001 Madison Ave., Cleveland 2, Ohio

- ☐ Please send literature to indicate the practical and thorough nature of the *Sight Perfection* painting program you will design especially for us.
- ☐ You may have your representative call and demonstrate SPRAY-DAY-LITE in our premises without obligation on our part.

NAME .....

SCHOOL.....TITLE.....

ADDRESS .....

CITY, ZONE, STATE.....

**MORSE BOULGER**  
INCINERATION

Typical Small Morse  
Boulger Pathological  
Waste Incinerator

**Fully Protects  
Personnel and  
Buildings by  
PROPER Disposal  
of Wastes**

Health isn't the only factor to be considered in connection with school wastes. There's a very definite fire menace if combustible wastes are allowed to accumulate in or near buildings prior to cartage. And contaminated wastes should not be ignored.

The only sure way to dispose of trash, garbage, organic matter and other wastes to be found in and around schools and institutions is by incineration in a properly designed built-in or separate incinerator.

Here is where our engineers, with nearly 60 years of experience, can be of great help. Having a variety of incinerators from which to select, we are not limited in our choice. We can select the unit best in type and size for your requirements. Write us about your problem.

**MORSE BOULGER  
DESTRUCTOR CO.**

205-J EAST 42ND STREET • NEW YORK 17, N. Y.  
REPRESENTATIVES IN PRINCIPAL CITIES

## ARE YOU HITTING or MISSING



## ... with your Present Method of INSECT CONTROL?

Seeking a positive "hit-and-kill" way of solving your insect problem? The new WEST VAPOMAT—filled just *once* with West Vaposector Fluid\* gives you "sure-fire" control of roaches and similar crawling insects within areas of 50,000 cu. feet. "Effective Kill" of *flying* insects in areas up to 100,000 cu. feet is also accomplished.

The West Vapomat actually penetrates the "Hidden Breeding Places" in your building—its tiniest cracks and crevices. Completely automatic, economical, light and easy to operate—merely set time clock and plug into AC or DC outlet, no manual attendance required.

*A prompt, dramatic demonstration by one of West's trained specialists will quickly convince you! MAKE US PROVE WHAT WE SAY! WRITE US ON YOUR BUSINESS LETTER-HEAD NOW!*

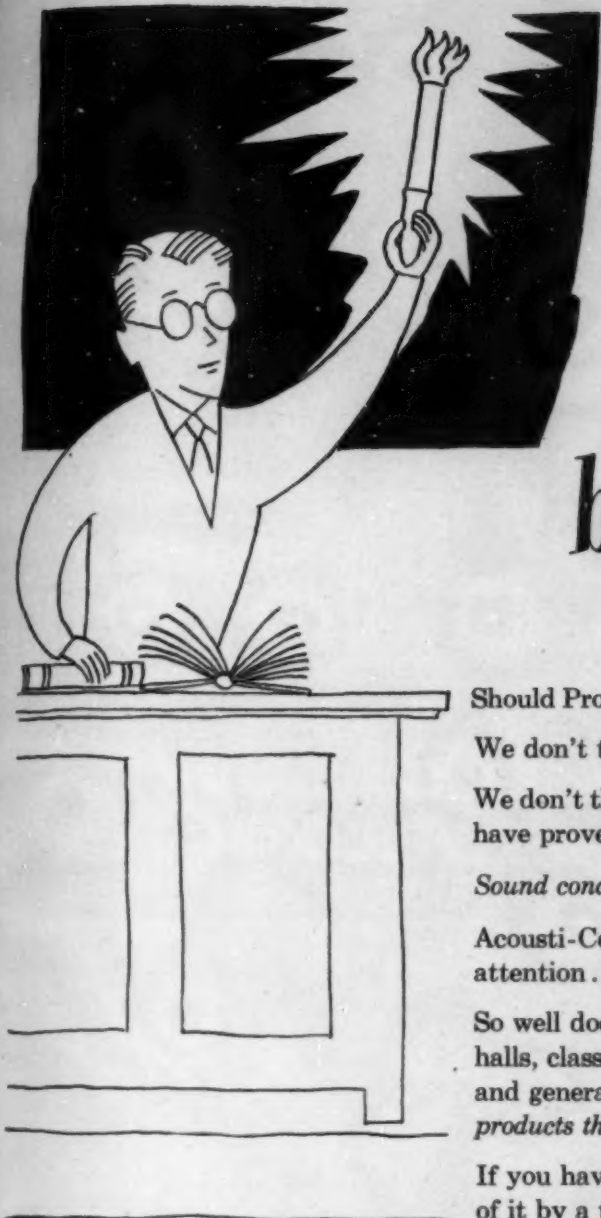
\* West Vaposector Fluid is obtainable in non-inflammable, odorless and regular forms. Non-toxic as well as non-staining. West Vaposector Fluid is unsurpassed in insect killing efficiency and economy.

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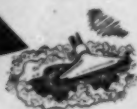
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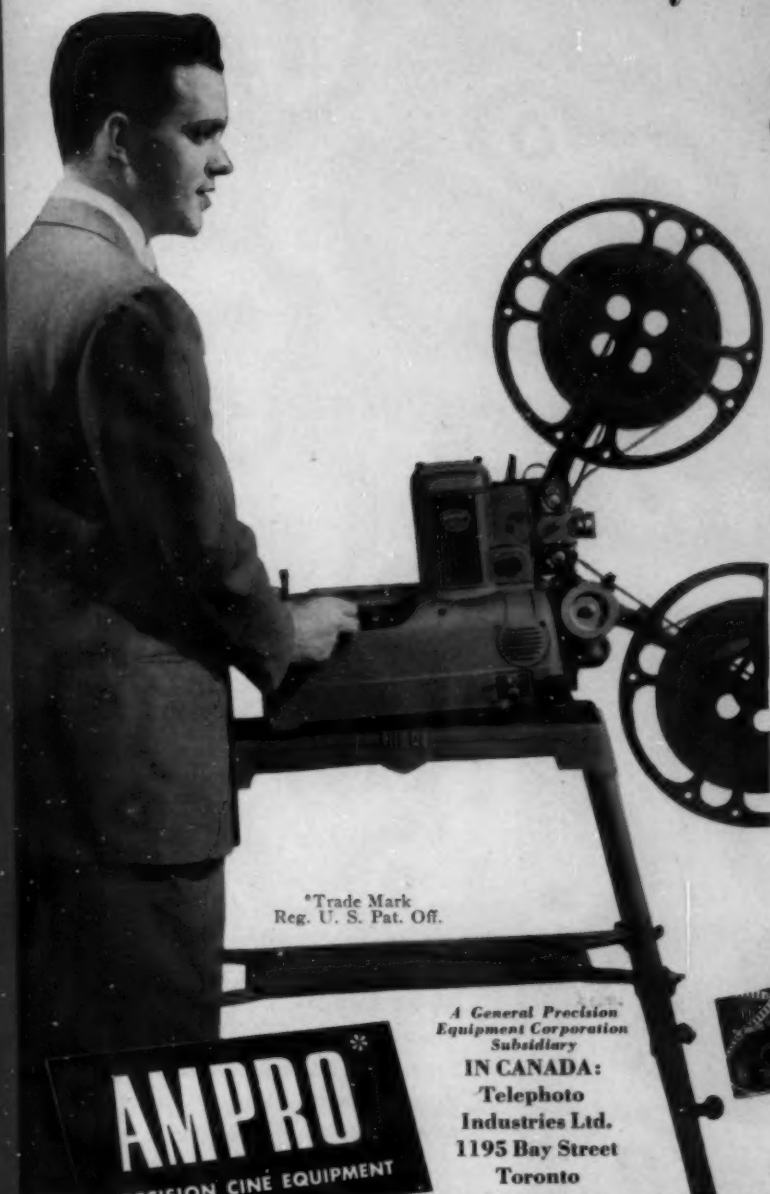
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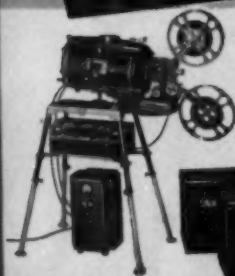
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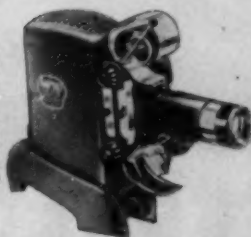
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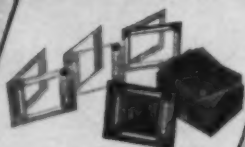
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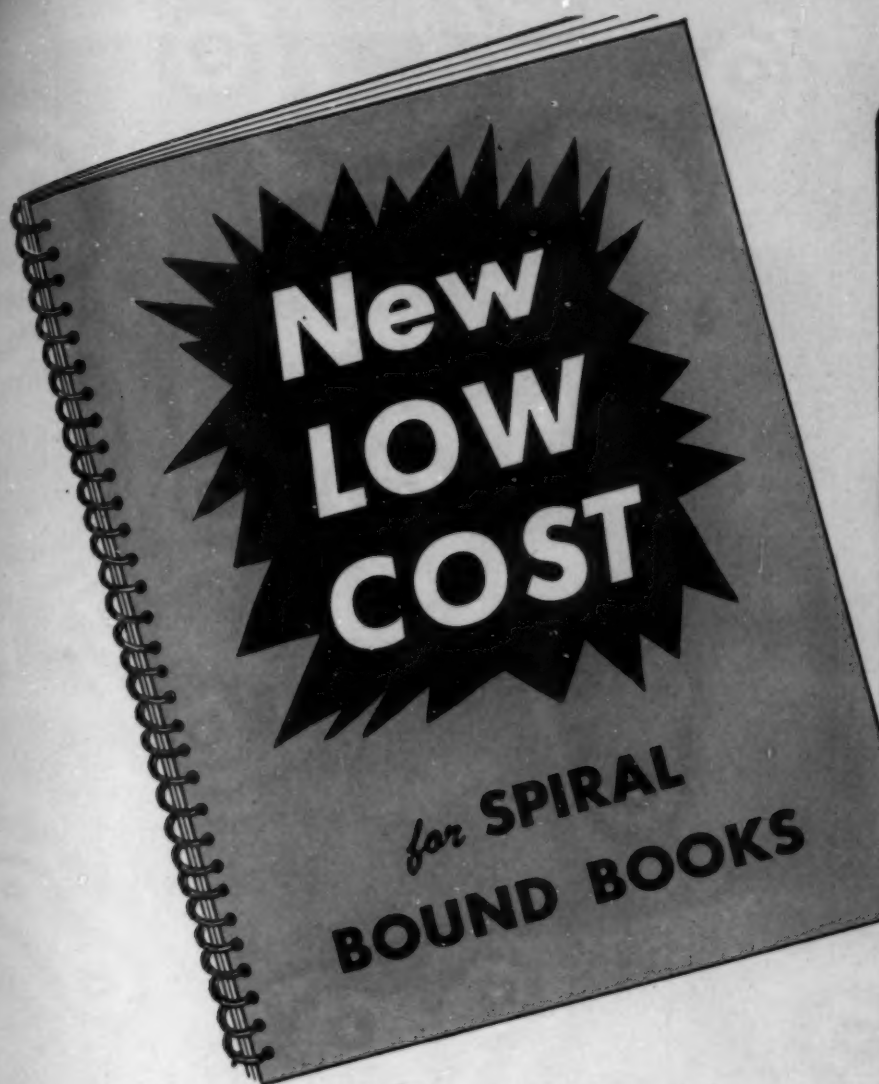
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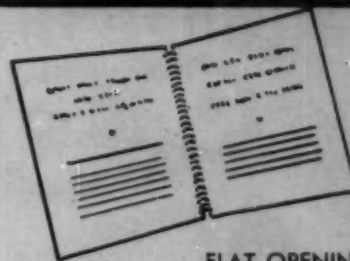
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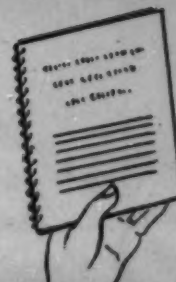
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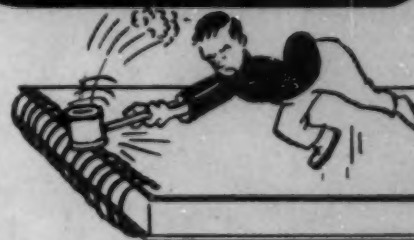


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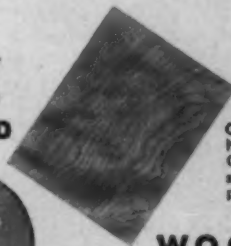
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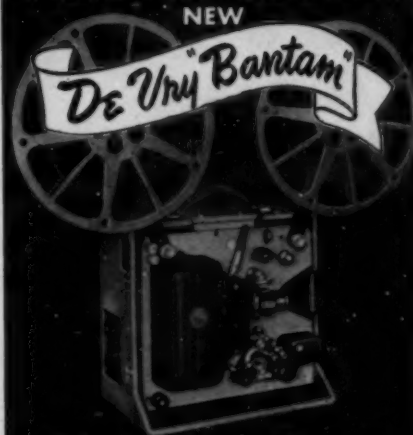
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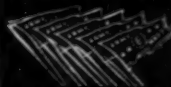


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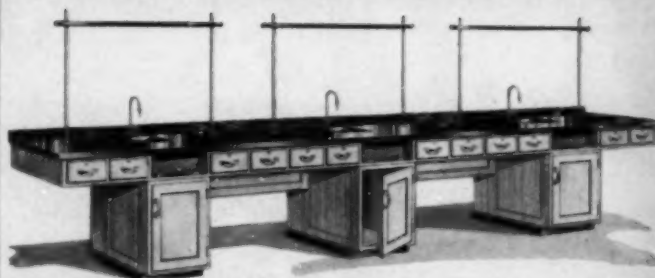
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Robert Gardner,  
Mgr. Morrison's Cafeteria,  
Tampa, Florida



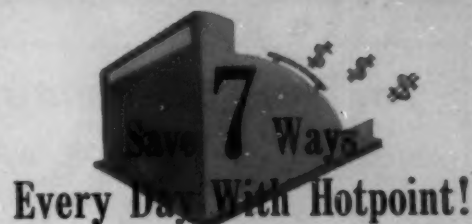
At right, Hotpoint baking  
and roasting ovens in Mor-  
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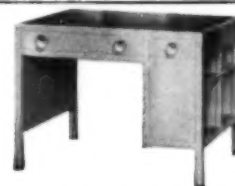
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Double Desk F-142-12: For two students. Has two open book shelves at end, two drawers on each side. Height 31½ in.; Top 42 x 32 in.



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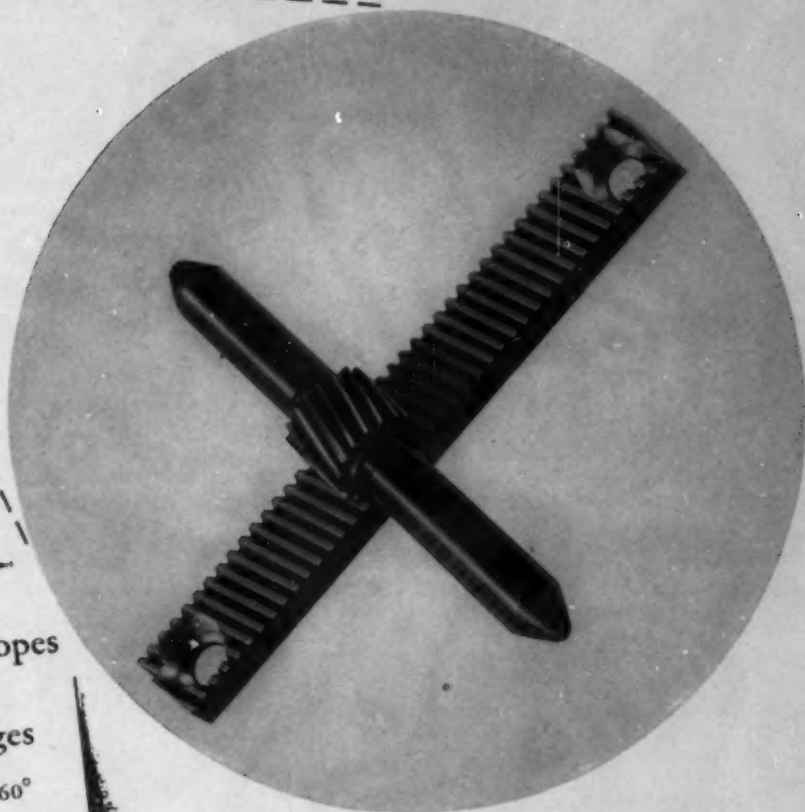
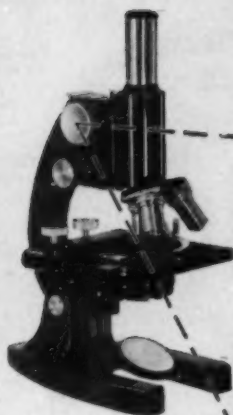
DORMITORY DIVISION

*Display Rooms*

Kneehole Desk F-142-9 (Shown in room scene above). Has open book shelves at each end, 3 drawers with large pulls. Height: 31½ in.; Top 44½ x 21 in.

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from any point of view



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★ Penetrating SEAL No. 21 leaves a smooth dull finish that will not rubber burn. It is easily applied with a sheepskin applicator and becomes, in twelve hours, an integral part of the floor. It can quickly be brought to a gleaming finish, if a bright surface is desired, by applying two coats of Hillyard's Super Hil-Brite, a water resisting self-polishing coating.

★ ONEX-SEAL is a formulated compound of various materials that not only seals and protects Terrazzo, tile, marble, slate and cement floors, but transforms a dull, lifeless, unattractive rough surface to a protected, stain resistant, smooth mirror like surface revealing the true natural colors.

★ STAR GYM FINISH is a popular quality product, contributing to added safety for the players with its non-skid, no-glare surface. This beautiful finish with its easy maintenance and long wearing qualities is greatly favored by many of the country's leading public and private Athletic Directors and Coaches.



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**EXTRA HEAVY ROUND THREAD** Sheets and Pillow Cases. Chosen time and again because of their fine quality and durability.

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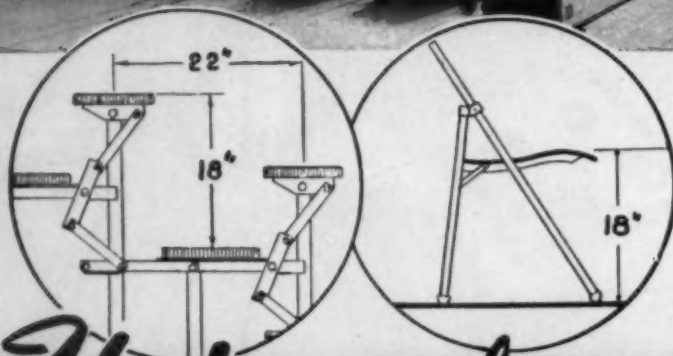
Call on Honeywell for consultation about every kind of automatic control question. Simply phone or write the Honeywell branch in or near your city. Minneapolis-Honeywell, Minneapolis 8, Minnesota. In Canada: Toronto 12, Ontario.

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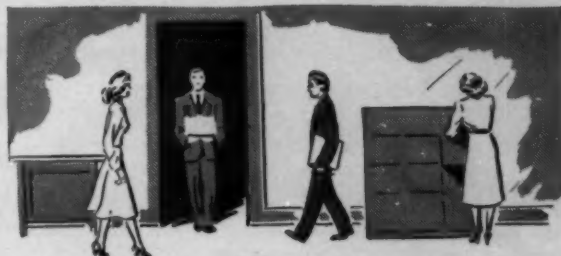
# They topped the bill with a FLOP!

(Case History #117)

EVERY WEEK, four or five employees staged a flopping act on this company's slippery waxed floors . . . and sent accident costs to the top of the overhead bill. Yet management couldn't stop the show, despite try-outs of every known floor wax.



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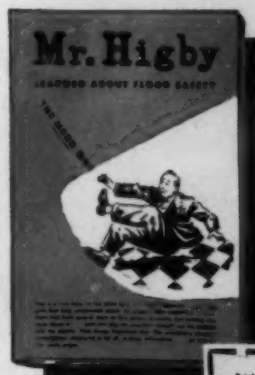


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Please send me your free book, "Mr. Higby Learned About Floor Safety the Hard Way."

Signed \_\_\_\_\_  
Title \_\_\_\_\_  
Type of Floor \_\_\_\_\_  
Area \_\_\_\_\_ sq. ft.

C17



# WESTON High-Frequency Analyzer

MODEL  
769

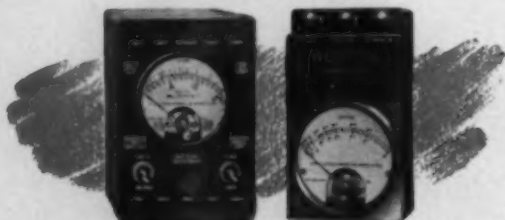


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schools this  
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# LUMINALL

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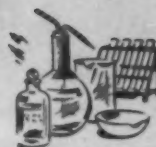
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**They're the strongest folding chairs made—**

re-enforced at every vital point for extra strength. Stand perfectly firm—are well balanced—never creak or wobble. They're the acme of comfort with wide seats, contour-fitting back. Smooth surfaces and edges—no sharp corners or splinters. Attractively finished.

Available in Golden Bronze or choice of assorted colors. Buy with confidence from Clarín—the Originators of the Steel Folding Chairs.

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Visible Key Control  
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**4** TelKee retains a Reserve - Pattern key—never loaned. Tells you to whom other keys have been loaned.

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## COLLEGE and UNIVERSITY BUSINESS



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***Clark Linen & Equipment Co.***

303 W. Monroe St., Chicago 6, Ill.  
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CUB 5-48

# WHAT'S NEW

MAY, 1948

Edited by Bessie Ceveri

TO HELP you get more information quickly on the new products described in this section, we have provided the postage paid card opposite page 32. Just circle the key numbers on the card which correspond with the numbers at the close of each descriptive item in which you are interested. COLLEGE and UNIVERSITY BUSINESS will send your requests to the manufacturers. If you wish other product information, just write us and we shall make every effort to supply it.

## Dormitory Space Saver



A new combination vanity, desk and dresser unit has been developed by Simmons. It provides a solution to the furnishing problem in dormitories and other housing units where wall space is limited in sleeping quarters. The one unit serves as a dresser with three drawers, as a dressing table with mirror and as a knee-hole desk with drawer for writing materials or cosmetics. It combines unusually attractive design and finish with practical versatility and space saving.

The Van-D-Dresser is of rigid construction, insulated for quiet operation of drawers. Spring clip, rubber cushioned stops prevent drawers opening to the point of falling and the top drawers have center partitions. It is a utility unit which provides, at the same time, an unusually attractive, room-saving piece of furniture. Using the Van-D-Dresser, a small room with limited wall space can still provide the occupant with all required facilities. The case is available in a wide selection of lasting finishes and is 30½ inches high with top 21 by 59½ inches. *Simmons Company, Dept. CUB, 222 North Bank Dr., Chicago 54. (Key No. 1)*

## Fremont Rubber Tile

Floors by Fremont is the name given to a new line of rubber tile which is available in a wide variety of colors in plain solids or marbled. Both the solid and the marbled colors are impregnated throughout the tile for permanence of appearance and the tile is designed for long

wear even under heavy traffic. It is so constructed as to withstand denting, scuffing, acids and oil and to be fire and grease and stain resistant and waterproof.

Fremont rubber tile is easily maintained. Sweeping or light mopping keeps it clean and occasional waxing keeps it lustrous. It has no pores to hold dirt and grit, hence normal maintenance keeps it attractive in appearance without refinishing. The new tile is soft and resilient, thus lessening fatigue for those spending much of their time on their feet. It is so designed as not to loosen or buckle on the floor and its pliability under various degrees of temperature permits fast laying.

The tiles are ⅛ or 3/16 inch thick and are uniformly cut in 4½, 6, 9 and 12 inch squares with feature strip ½ to 1½ inches wide and sheet border stock 36 by 45 inches in plain and marbled color combinations. *Fremont Rubber Co., Dept. CUB, 287 McPherson Highway, Fremont, Ohio (Key No. 2)*

## Lowrey Electronic Organ

The new Lowrey Electronic Organ is the result of progressive engineering developments in the field of electronic organs. It is a single manual organ with much of the versatility of a two manual organ. Consisting of but a single 61 note keyboard, it offers a total of 28 stops and couplers and an expression pedal with three stages of intensity control. The keyboard is split at middle C and this, with proper use of the couplers, makes it possible to obtain two manual results.

Tonal qualities are produced entirely electronically and are simulations of various organ and orchestral tones. It is readily tunable to standard pitch or may be altered as desired. Tempering only one octave of the organ automatically and simultaneously tunes the entire instrument. Once tuned, the organ stays tuned indefinitely or until manually altered.

The Lowrey Organ is designed for high standard of excellence, ease of performance and superior tonalities. The frequency range encompasses six octaves, with couplers. The organ was designed to fill the need for a small organ flexible enough to cover all fields of music. *Central Commercial Co., Electronic Div., Dept. CUB, 332 S. Michigan Ave., Chicago 4. (Key No. 3)*

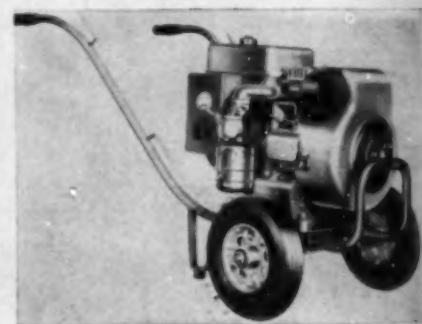
## Kaylo Insulation

A new fireproof insulating material is now going into manufacture under the name Kaylo Insulation. A cellular compound of inorganic materials, Kaylo combines light weight with structural strength. It will be manufactured in two weights or densities, 20 pounds and 11 pounds per cubic foot. The heavier density, more than 80 per cent air cells, is designed for use where both structural strength and insulation value are needed, as in fireproof doors, fireproof roof tile and other building purposes. The lighter density, more than 90 per cent air cells, is designed for use where resistance to heat flow is the principal requirement, as heat insulating block, pipe covering and similar uses.

Both densities have great strength despite their light weight and the product can be drilled, sawed and nailed. *American Structural Products Co., Dept. CUB, Ohio Bldg., Toledo 1, Ohio. (Key No. 4)*

## Ground Maintenance Electric Plant

Those responsible for the maintenance of grounds will be interested in the new AH series of portable electric plants especially designed to provide power for any electric gardening tool, universal, alternating or direct current, within their full rated capacity. Only one gallon of gasoline is required for more than four



hours of operation under heavy load conditions with the new plants.

Turf maintenance as well as trimming of bushes and trees can be powered through these units and repair work on any part of the grounds can be done with electric tools powered by the portable plants. *D. W. Onan & Sons, Inc., Dept. CUB, Minneapolis 5, Minn. (Key No. 5)*



### Organ Percussion

The new Vibrachord percussion has been designed for use either with separate keyboard or from any organ manual to supplement the standard organ stops and include an ethereal dolce, celesta, normal organ harp stop, muted harp for accompaniment, orchestra bells and the original tone of the Vibrachord itself.

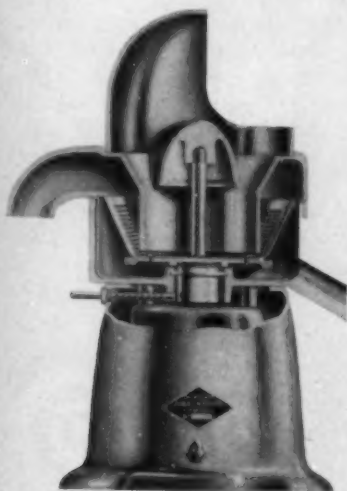
Vibrachord tones are described as true percussion tones produced by the striking of felted hammers on harmonically tuned steel bars, all permanently tuned by the manufacturer. Construction of the Vibrachord makes it adaptable for use in conjunction with Maas Amplified Tower Carillons and Maas Cathedral Chimes. *Maas-Rowe Electromusic Corp., Dept. CUB, 3019 Casitas Ave., Los Angeles 26, Calif. (Key No. 6)*

### DC Pan Glaze

Colleges and universities doing their own baking, whether of all items or only specialties, will be interested in DC Pan Glaze. This silicone product, when sprayed and baked onto baking pans, eliminates the necessity for larding or greasing the pans before using.

One application of Pan Glaze is reported to last for approximately 200 bakings. The improved product is not affected by high relative humidity in the proof box, pans are more easily cleaned and the bread baked in Pan Glaze coated pans is more uniform and more evenly browned. *Dow Corning Corp., Dept. CUB, Midland, Mich. (Key No. 7)*

### Citrus and Vegetable Juicers



Newly developed juicers for citrus fruits and all deciduous fruits and vegetables have been announced. All juices in the fruit or vegetable are strained from the pulp into a bowl and the pulp is forced out through an expulsion spout. These operations are entirely automatic,

including feeding the fruit or vegetable into the juicer, and the juicers are continuous in operation, it being unnecessary to stop to remove pulp or seeds during the process.

The juicers are made of highly polished, food-processing machinery aluminum alloy with all parts, which come in contact with the juices, of stainless steel. A stainless steel rotating basket strains the juices into a stainless steel bowl in a process that gets all the valuable elements out of fruits or vegetables. All varieties of fruits and vegetables can be turned into juice by these automatic extractors. *California Juice-Master Co., Dept. CUB, 690 Market St., San Francisco 4, Calif. (Key No. 8)*

### Air Diffuser

The Anemostat aspiration principle, which draws room air into the device and mixes it with supply air, is employed in the new type air diffuser recently released. Any desired air flow pattern ranging from draftless diffusion to downward projection, without affecting air resistance, may be obtained at the turn of a knob. Adjustment setting permits variation from 15 to 35 per cent of air drawn into the outlet.

The new adjustable feature permits the Type C-1 Anemostat to be used for heating, ventilating or cooling in any combination. The air flow pattern may be modified to meet changing conditions and can easily be adjusted to neutralize the effect of local sources of heat gain or loss. It functions equally well mounted flush to the ceiling or on exposed duct work. Adjustment can also be accomplished by remote automatic or manual control. *Anemostat Corp. of America, Dept. CUB, 10 E. 39th St., New York 16, (Key No. 9)*

### Electrical Brake for Prosperity Extractors

The new 40 inch and 48 inch Prosperity open-top extractors are now equipped with an automatic electrical brake. This new brake employs the power circuit to the motor but rearrangement of electrical connections in the motor reduces the current, thus making the cost of the additional electric power negligible.

The motors which operate the extractors are designed for the double service of starting and stopping the machines. No adjustments are required and there are no brake linings to replace, thus the new electrical brake is designed to stop the machine with the same speed throughout the life of the extractor. *The Prosperity Company, Inc., Dept. CUB, Erie Blvd., Syracuse 1, N. Y. (Key No. 10)*

### High-Speed Laundry Drying Tumbler



Designed for economical mass production drying of all laundered work, the new American High-Speed Drying Tumbler has multiple fans, full-length, double banked heating coils, and automatically reversing cylinder with large air-circulating areas. Balance of the three factors has been carefully engineered to achieve rapid drying.

The tumbler is operated through a simple, push-button control and the single-latch case door is counterbalanced for easy opening. The door is inter-locked with the electro-mechanical brake and cylinder and fan motors. Opening the case door automatically stops the motors and applies the brake. Indicator dial enables the operator to spot the cylinder door for unloading without opening the case door. The thermostatic damper control automatically admits hot or room-temperature air to the load as needed. A light signals the operator when the load is ready to be removed. The unit is especially designed for simple, safe operation. *The American Laundry Machinery Co., Dept. CUB, Cincinnati 12, Ohio. (Key No. 11)*

### Elevator Car Finishes

A choice of 61 colors is now available in the standard line of finishes for Otis Elevator car interiors. The colors are divided into four classes: solids; Metalusters, having a metallic sheen; Metaluster Hammertones, having a metallic sheen and an appearance of depth, and wood grains.

The standard Otis finishes differ in the glassiness of the final lacquered surface. "A" is a flat finish for use on canopies of cars with direct lighting; "AA" an extra flat finish for canopies of cars with indirect lighting and "B" a semi-gloss and "C" a high gloss are for car panels and other lacquered parts except canopies. *Otis Elevator Co., Dept. CUB, 260 Eleventh Ave., New York 1. (Key No. 12)*



### Lathurshelf Soap Dispenser



The Lathurshelf provides a combination shelf and soap dispenser. Made of 18-8 polished stainless steel to do away with rusting or tarnishing, the unit is available in one or two basin sizes. Creamy lather is dispensed by a pushbutton so designed as to prevent leakage or dripping and the snap lock on the cover can be opened only with the key supplied to those in charge of maintenance.

The unit is attractive in appearance while serving its double purpose as shelf and dispenser. It has a capacity of a half gallon of liquid soap, the level of which is indicated by a visible gauge. The shelf is 20 inches long, 4½ inches wide and 2 inches high and is available with either one or two lather valves. *American Dispenser Company, Inc., Dept. CUB, 215 Fourth Ave., New York 3. (Key No. 13)*

### Motor Driven Fluid Duplicator

The new REX-O-graph is completely automatic and is designed to save time and labor in duplicating work of all types, from simple copymaking to intricate systems work. Operation of the machine has been greatly simplified. The master is dropped in place, the lever moved to the "feed" position and the machine operates automatically, feeding and processing the sheets. When the required number of copies is run, the feeding stops automatically and the lever moves to the "idle" position. The operator is notified by an audible signal and the machine is stopped by a push on a button. The master can be automatically ejected when desired.

The new machine has automatic paper centering, 100 per cent roller moistening, feeding, counting, master copy ejection and copy stacking. The "Quick-Change" master guide and other features of the earlier models are incorporated in the new REX-O-graph. *REX-O-graph, Inc., Dept. CUB, 3749 N. Palmer St., Milwaukee 12, Wis. (Key No. 14)*

### Inside Metal Storm Sash

The new Fenestra Inside Metal Storm Sash is designed to be a part of a complete window unit—steel casement, screen and inside metal storm window. The new storm window is available, if desired, with a tilt-in vent at the bottom to provide

draftless ventilation. It is quickly and easily installed from inside the room and a rubber gasket, attached to the frame, prevents metal to metal contact and acts as a quick seal for the whole opening. Heat loss is reduced by installation of the storm window which also keeps the windows clear of frost even in coldest weather.

This new unit will be of particular interest to those planning new buildings or remodeling of old. It should be particularly worthwhile in dormitories and other housing, as well as in laboratories and similar sections. The new window is formed steel, bonderized, with the paint baked on at the factory. *Detroit Steel Products Co., Dept. CUB, 2250 E. Grand Blvd., Detroit 11, Mich. (Key No. 15)*

### Public Room Furniture

Sectional units designed especially for use in furnishing lobbies, waiting rooms, dormitory living rooms and other areas occupied by the public have been developed by Hill-Rom. The furniture is



built for the hard wear expected in public rooms and is designed for easy maintenance and attractive appearance. The pieces are available either with slip covers or with a permanent type of upholstery, either fabric or composition leather.

The units are so designed that they can be arranged as settees seating either two or three, as individual chairs for grouping with tables or alone and in many other arrangements possible because of the flexibility of the designs. *Hill-Rom Co., Inc., CUB, Hartford 2, Conn. (Key No. 16)*

### Anatomical Charts

Two new series of anatomical charts for teaching cover the lymphatic system and the endocrine glands. Chart 26, the lymphatic system, covers all vessels, structures and nodes and is a full-colored, large size wall chart edited by Nich. M. Alter, M.D. There are five charts in the set on endocrine glands, edited by Max A. Goldzieher, M.D., endocrinologist, with a special textbook for studying the charts. All charts are mounted on linen with wooden rollers at top and bottom. *Rudolf Schick Publishing Co., Dept. CUB, 700 Riverside Drive, New York 31. (Key No. 17)*

### All-Plastic T-Square

The redesigned all-plastic T-Square features edges of absolute accuracy and flat surfaces that allow a snug fit on top and sides of the drawing board. The plastic is completely transparent to permit an unhampered view of subject matter at all times. The new model has recessed head which reduces the number of rivets normally used, yet gives greater rigidity. Made of Monsanto Lustron, the plastic will not cloud and is easily washed. It is available in 15, 18, 23, 30, 36, 42 and 48 inch sizes and in other sizes on special order. It is light in weight and easy to handle. *C-Thru Ruler Co., Dept. CUB, 827 Windsor St., Hartford 2, Conn. (Key No. 18)*

### Fluid-Drive Elevator

A less powerful motor, fewer switches to service and smaller elevator machinery rooms are some of the advantages stated for the new "Gyrol" fluid drive introduced by the Warsaw Elevator Company. Only a single switch is required for upward travel and another for downward travel with the new fluid drive, thus simplifying the electrical control system. Hairline leveling and smooth starting and stopping are also mentioned as normal operation with this new "single speed" elevator equipment. *Warsaw Elevator Co., Dept. CUB, Warsaw, N.Y. (Key No. 19)*

### Laundryable Sweeping Mop

The new Fuller laundryable sweeping mop fits over a heavy rod supporting frame and is fastened on with a zipper. This speeds assembling and removing the mop from the frame and eliminates parts which might pull off. It is designed to sweep and dust large floor areas and serves both as a floor brush and as a dusting mop. The mop head is easily removed and fully washable. The 4-ply cotton yarn has long-trim and the canvas backing is Sanforized. The mop has a hardwood handle with long upper clamp and is available in 12, 18, 24, 30, 36, 42 and 48



inch widths. *The Fuller Brush Co., Dept. CUB, Hartford 2, Conn. (Key No. 20)*

## Product Literature

● "Available now, a New Service for Microfilming All Business Records" is the title of a leaflet issued by the Microfilm Division of Bell & Howell, 221 N. La Salle St., Chicago 1. Detailed information on this service and its advantages in saving of time and storage space are discussed. (Key No. 21)

● A recipe service whereby institutions will regularly receive 4 by 6 inch recipe cards featuring quantity service of various Heinz products has been inaugurated by H. J. Heinz Co., Pittsburgh 12, Pa. Each recipe will be designed to serve 50 people and the back of the recipe cards will show suggested menus for complete luncheons or dinners featuring the food dish described in the recipe while every third card will carry a colored photograph showing the finished dish. (Key No. 22)

● An attractive booklet, *Preview, Best Universal Locks*, gives information on these locks and lists the advantages of their use. Data on the interchangeable core, the control key, the complete keying system and descriptive details are included in this booklet issued by Best Universal Lock Co., Inc., Indianapolis, Ind. (Key No. 23)

● "Selected References on Audio-Visual Education and Training" are given in a booklet compiled by Eastman Kodak Co., Rochester 4, N.Y. The booklet lists most of the significant articles and books concerned with the production and utilization of photographic audio-visual aids which have been written since 1940 with a few of earlier origin. Also available from the same manufacturer is a leaflet giving "Some Sources of Educational 2 by 2 inch Slides." (Key No. 24)

● The new Webster System Radiation is fully described and illustrated in an attractive booklet recently issued by Warren Webster & Co., Camden, N. J. Illustrations showing the types of enclosures available and details of the mechanical features of the radiation are augmented by diagrammatic drawings and specifications together with rated capacities of the various units. (Key No. 25)

● Information and data necessary for the proper selection of air diffusers is contained in the new catalog and engineering data book on "Kno-Draft Adjustable Air Diffusers" issued by the W. B. Connor Engineering Corp., 114 E. 32nd St., New York 16. Known as *Bulletin K-20*, the new handbook gives full catalog data on the several Kno-Draft Diffuser types and accessories as well as much information of a general nature on the subject of air diffusion, all the information being presented simply and graphically. (Key No. 26)

● The new Beckley-Cardy "School Buyers Guide No. 84 of Equipment and Supplies" issued by Beckley-Cardy Co., 1632 Indiana Ave., Chicago 16, gives current information on all types of educational equipment and supplies including classroom, library and office furniture, blackboards and corkboards, classroom shades, visual education equipment, janitors' supplies, art supplies, duplicators, paper and teaching material. The catalog lists all important items, many of which were not available during the war years, and many new items not previously listed. It is arranged for easy, quick ordering. (Key No. 27)

● The new leaflet on "Terrazzo" issued by the National Terrazzo & Mosaic Association, Inc., 1420 New York Ave., N.W., Washington 5, D. C., contains shortform specifications, advantages of terrazzo for floors, bases and wainscots, diagrammatic drawings of terrazzo uses, information on what terrazzo is and illustrations showing its use in corridors and lobbies, for wainscot and walls and other uses. (Key No. 28)

● "Facing Tile, Structural, Glazed and Unglazed," is covered in Catalog 49C issued by the Facing Tile Institute affiliated with Structural Clay Products Institute, Washington 6, D. C. The 36 page book gives factual information on facing tile, on the Facing Tile Institute and has many pages of drawings showing the type, shapes, sizes and uses of facing tile. (Key No. 29)

● Use of the Vari-Typer to "Prepare Copy for Printing and Duplicating" is explained in a booklet issued by Ralph C. Coxhead Corp., 333 Avenue of the Americas, New York 14. The booklet is a comprehensive study of the printing processes employing the Vari-Typer, described in text and picture, and the application of the Vari-Typer method in educational institutions. (Key No. 30)

● The Cleveland Range Co., 3333 Lakeside Ave., Cleveland 14, Ohio, has recently issued an attractive new 4 page catalog insert giving specific information on the *Steam-Chef* compartment steam cooker. The various sizes and models of both the direct connected type and the steam generating types which produce their own steam from gas or electricity are described with information on the performance of these cookers. (Key No. 31)

● Complete data on all "Gold Bond Sound Control Products" are given in a catalog recently issued by National Gypsum Co., Buffalo 2, N. Y. Specifications, uses and general data on Econacoustic, Acoustifibre, Acoustex, Acoustimetal, Acoustimetal-B, Sprayed "Limpet" Asbestos and "Macoustic" Acoustical Plaster are given. (Key No. 32)

● A complete new catalog covering its "Laboratory Glassware" has been issued by Corning Glass Works, Corning, N. Y. Identified as *Catalog No. LP28*, the 176 page book covers all standard items and a note attached to the cover invites inquiries for special apparatus. The line includes Pyrex Brand, Vycor Brand and Corning Brand laboratory glassware and the complete index under subject headings makes it easy to find details on any desired item without delay. (Key No. 33)

● The new 1948 catalog issued by the Franklin-Lee Company, 215 W. 68th St., Chicago 21, gives full information on its line of furniture and equipment for educational institutions. In addition to school chairs, tables, cafeteria equipment and filing equipment, the catalog also lists steel and wood dormitory and lounge furniture. (Key No. 34)

● "Water Hammer—Its Cause and Cure" is the title of a 6 page booklet issued by Wade Mfg. Co., Elgin, Ill. Condensed facts, gathered from years of water hammer study by Wade engineers, are presented in easily understood language and the Wade Sealed Air Chamber as a solution to this problem is described. Also included are Selector Tables and Pressure Flow Charts for the use of architects, engineers and maintenance department heads. (Key No. 35)

● The new catalog issued by Allied Radio Corp., 833 W. Jackson Blvd., Chicago 7, contains a comprehensive listing of radio and electronic parts and equipment for classrooms, laboratory and shop. This 172 page book places special emphasis on the selection of materials required by schools for radio and electronics training activities. (Key No. 36)

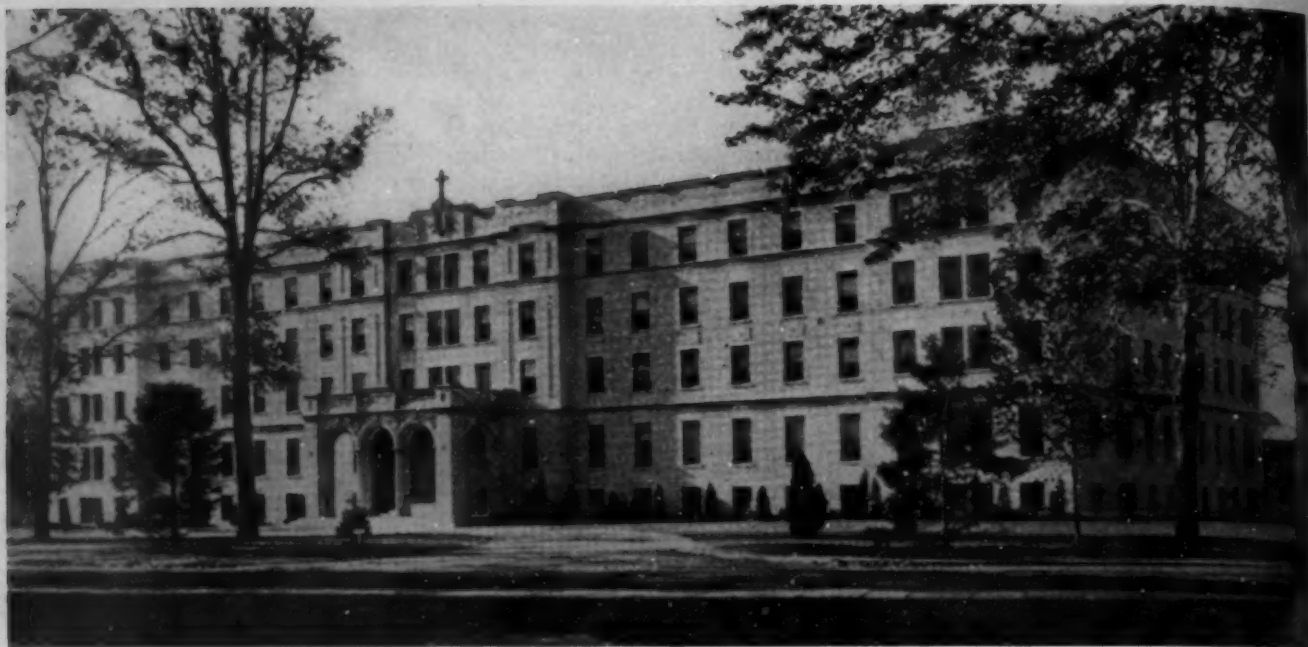
● Information on *Fabrit*, the mending material which repairs minor tears quickly and economically without sewing, is given in a leaflet prepared by Textile Leather Corporation and distributed by Madison Products Co., 3005 Detroit Ave., Toledo 10, Ohio. (Key No. 37)

● "The Residual Insect Toxicant, Chlordane," is the title of a leaflet issued by Julius Hyman & Co., Denver, Colo., describing this product which kills insects by direct contact, by ingestion and by exposure to vapor. Physical characteristics, uses, toxicity and availability of Chlordane are some of the subjects covered. (Key No. 38)

## Suppliers' Plant News

John Sexton & Company, 500 Orleans St., Chicago 90, has been appointed national distributor of Pinesbridge Farm Smoked Turkeys. This flavorful product is now available in inexpensive tins for institutional use. (Key No. 39)





A DORMITORY AT ST. ELIZABETH COLLEGE, CONVENT STATION, N. J. Tens of thousands of square feet of walls and ceilings are covered with FABRON, in bedrooms, baths, corridors, dining rooms, offices, etc., providing long term economy and a beautiful, harmonious decoration throughout.

## *Reduce dormitory maintenance costs with **FABRON** — the durable wall covering*

If the walls and ceilings of your dormitory rooms need re-doing this Summer . . . now is the time to consider FABRON, the canvas-plastic-lacquer wall covering that outlasts conventional wall finishes by several redecorating periods.

FABRON's proven durability eliminates the expense and inconvenience of periodic redecorations. Instead of beautifying for a short time only, FABRON has a life-span measured by the decade. Despite hard usage, original FABRON installations made in 1940 are as fresh and attractive today as when installed. Its colors are sunfast, completely washable. Easy remov-

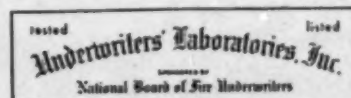
ability of crayon marks, ink splatters, lipstick and similar stains is, of course, assured.

Moreover, FABRON solves plaster problems. Its sturdy canvas and plastic base *permanently* strengthens weakened or patched-up plaster—prevents the appearance of unsightly and troublesome cracks. And FABRON's resistance to fire has earned for it the right to bear the Underwriters' Laboratories label.

Several thousand schools, hospitals, hotels and similar institutions have found FABRON a proven budget-saver. Ask about it today. Let us send you samples of patterns specially styled for college and university use, and an estimate of the cost.

FABRON prevents fire spread. Every roll carries the label of the Underwriters' Laboratories, Inc., sponsored by the National Board of Fire Underwriters.

**Fabron**  
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## HELPS MAKE A WINNING TEAM

So give your players the advantage of a *Gloss Seal finish* on your gym floors. *Gloss Seal*, which contains genuine phenolic resins, provides a playing surface that is thoroughly resilient, one that yields to and facilitates fast, safe footwork and teamwork. *Gloss Seal* also supplies a tough protective finish—resists heel burns, acids, alkalis, harsh soaps, water, friction—and won't darken or lose its transparency! Available in several *surface* and *penetration* types, *Gloss Seal* meets specific needs in classrooms, in corridors, and in places of exceptionally heavy traffic, as well as in the gymnasium.

Before you refinish the floors in your school, have a talk with the nearby *Finnell Floor Specialist*. His knowledge is broad and practical, sharing as he does *Finnell's* four decades of specialized experience in floor care.

For consultation, free floor survey, or literature on *Finnell Floor Seals*, *Waxes*, *Cleaners*, *Maintenance Machines*, and *Accessories*, phone or write nearest *Finnell* branch or *Finnell System, Inc.*, 4405 East Street, Elkhart, Indiana.

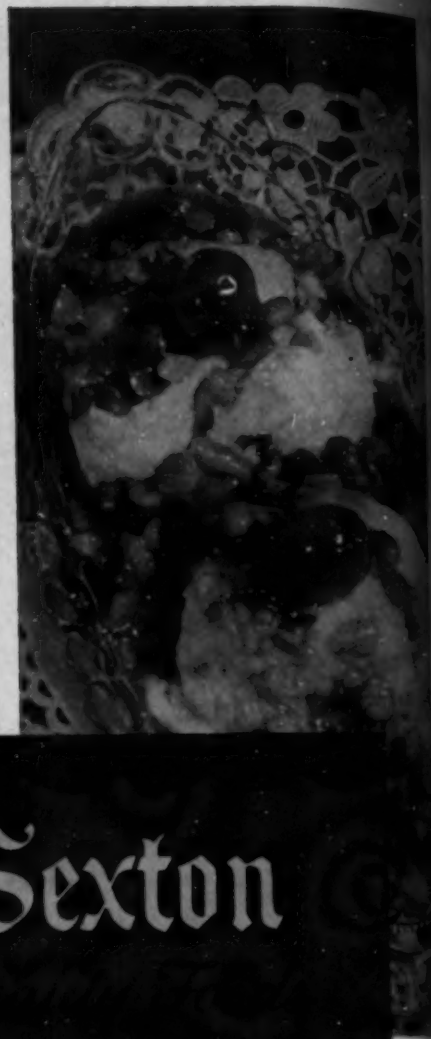


# FINNELL SYSTEM, INC.

*Pioneers and Specialists in*

FLOOR-MAINTENANCE EQUIPMENT AND SUPPLIES

BRANCHES  
IN ALL  
PRINCIPAL  
CITIES



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# *Fountain favorites*

Already, Sexton Fountain Specialties have captured the favor of fountain managers who know the art of pleasing the public. The rich crushed fruit makes every sundae a taste sensation. The chocolate syrup is smooth and mild, yet rich-bodied. The toppings are delectable. Sexton fountain service is convenient and complete even to the accessories. The Sexton Man in your neighborhood will be glad to call on you.

*Good Food for Pleased Guests*



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